THE BRICKBVILDER

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THE BRICKBUILDER.

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ADVERTISING.

Advertisers are classified and arranged in the following order: —

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Agencies. — Clay Products	II	Cements	IV
Architectural Faience	II	Clay Chemicals	IV
" Terra-Cotta	II and III	Fire-proofing	IV
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Advertisements will be printed on cover pages only.

LIBRARY COMPETITION. — JURY OF AWARD.

THE following named gentlemen have consented to judge THE BRICKBUILDER Library Competition:

ROBERT S. PEABODY (Peabody & Stearns), president Boston Society of Architects.

PROFESSOR D. DESPRADELLE, Professor of Architecture, Massachusetts Institute of Technology.

CHARLES A. COOLIDGE (Shepley, Rutan & Coolidge).

CLARENCE H. BLACKALL.

WILLIAM C. HALL, president of the Perth Amboy Terra-Cotta Company.

There was a large number of drawings submitted in the competition, and the work of judging them will necessarily be slow. We hope, however, to be able to announce the awards in THE BRICKBUILDER for December.

THE ARCHITECT'S NAME.

THE earliest appearance of an illustrated architectural journal in this country dates from about 1876. Up to about 1890 illustrations of architecture were restricted to purely technical papers and a very few magazines, but the improvement in process work and the development of the capabilities of the press made it possible for the daily papers to print with the news more illustrations of various sorts, though it was six or eight years later before the newspapers discovered the way to print half-tones. The architectural illustrations in the daily press were a natural outgrowth of the real-estate column, but every year now sees a larger proportion of the space in our leading daily papers given up to illustrations of actual or proposed architecture. The reporters are keenly on the alert to secure drawings for reproductions of every prominent building proposed or even thought of, and usually these drawings are obtained through the intermediary of the architect, being in many cases reproductions of the work which he has prepared for his clients. The character, both of the drawings themselves and the reproductions which have appeared in the daily press, has been steadily increasing with each year, and some of the finest examples of draughtsmanship and design have found their way into the news columns. The equitable rights of the architect in such reproductions have, however, been very generally misunderstood by the journalists. During the earlier years of such publication it was the exception to note a drawing with which was coupled the name of the architect; and while a reporter was usually quite willing to avail himself of the architect's efforts, to copy his drawings and to pump him for information, there seemed to be a feeling that if the architect's name appeared in print it was in the nature of a puff or a species of advertising to which the architect had no equitable right. This point of view is, we are happy to say, changing in many respects, and we believe it is coming to be the rule with the best daily papers to endeavor in each case to set forth the architect's name in connection with the building illustrated or described, not merely as a return of courtesies for the loan of drawings, but because it is an item of legitimate news in which many people are personally interested.

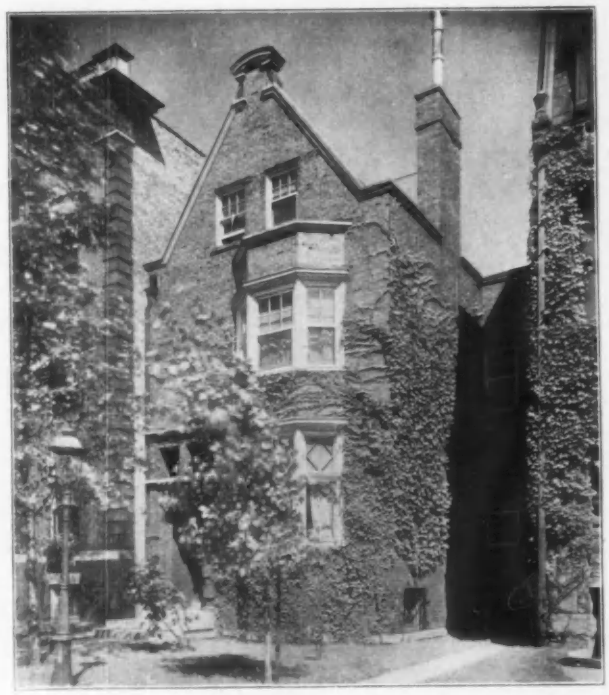
We feel that right in this line there is a possibility for a great work to be done by our draughtsmen's clubs. A newspaper would not omit an architect's name as a matter of spite any more than they would put it in as a matter of mere complimentary puff; but if our younger architectural societies were to take the matter up with their editorial friends and do a persistent amount of missionary work, to state the architect's position rightly, a great deal might be accomplished towards a more general recognition of the architect's right in the reproduction of his design, and anything which would so help the profession would tend to foster better architecture, and quite directly be a benefit to the community.

Brick Architecture in and about Chicago. II.

BY ROBERT C. SPENCER, JR.

THE best domestic architecture of Chicago during the last decade has been distinguished by its simplicity and severity. This severity, however, lies particularly in an absence of ornament and the use of simple, almost cheap materials. The wealthy citizens, as a rule, are loath to spend money here for the sort of palatial magnificence which is making of New York a transplanted and more gorgeous Paris.

The work of Pond & Pond exemplifies excellently the possibilities of simple brickwork thoughtfully handled, in



HOUSE, 4575 OAKENWALD AVENUE.
Pond & Pond, Architects.

which interest and effectiveness are gained by composition, sometimes formal, oftener picturesque.

Of the formal types the colonial house on Asbury Avenue, Evanston, and the very clean-cut gabled house at 4575 Oakenwald Avenue are good examples. The latter is of dull purplish red bricks, delicately freckled with accidental headers and stretchers almost black. The entrance arch, flanked by quoined piers with a double opening above, is unhackneyed and effective. In the picturesque apartment house at 5515 Woodlawn Avenue the basement is of dull brown rock-faced bricks with dull tan-colored pressed bricks above, serving as the ground for a diaper pattern and band treatment in the dark bricks in the third story.

At 4854 Washington Avenue is another apartment building which, as a whole, is the best of the three. There is practically no ornamentation, except the frets on the pilasters flanking the entrance.

At Lake Forest University, Reid Hall is a very pretty example of clean, formally picturesque brickwork. The proportion of the gables, the contrast of wall surface and massed openings, the judicious use of dark brick for base and horizontal bands above the delicate stratification of sunken courses in the central gable with its delicately crowned bell tower, are all admirable.

The house at 5220 East End Avenue and the house at 5749 Woodlawn Avenue illustrate the difficulty of grafting the slight American porch upon a masonry house having a solid substantial English feeling.

The more pleasing of the two is the Woodlawn Avenue house, in which the porch is replaced by a terrace which is screened and sheltered by an arbor.

The work of the Pond brothers in the field of brick buildings for social settlements is as individual as their domestic work and presents similar characteristics. It is so well known that it is not shown here.

Chicago, Milwaukee and St. Louis boast a great many brewery buildings, but they are distinguished for their bulk rather than for architectural merit.

In a very unpromising manufacturing neighborhood near the South Branch of the Chicago River is the plant

ENTRANCE, AMERICAN MEDICAL JOURNAL BUILDING.
Holabird & Roche, Architects.

of the Schoenhofen Brewing Company, to which has just been added a remarkably clean, dignified and clever example of brickwork from the office of Richard G. Schmidt. Although absolutely devoid of ornament in the common sense of the word, raised bands of the rough red paving bricks have been used in a masterly

HOUSE, ASBURY AVENUE, EVANSTON.

ENTRANCE TO APARTMENT, 4854 WASHINGTON AVENUE.

REID HALL, LAKE FOREST UNIVERSITY.

APARTMENT, 5515 WOODLAWN AVENUE.

Work by Pond & Pond, Architects.

manner to give a highly architectural appearance of unity and finish to the whole, in spite of the irregular fenestration with which the designer had to contend on both street fronts, the principal one of which is here shown. The effectiveness of the tower and of the entire building is marred by the lofty and irreconcilable steel stack of the power house in the rear.

HOUSE OF CHARLES A. FROST, ARCHITECT.

If any serious fault may be found with so excellent a modern building it is in the rather too sharp contrast of the stone entrance with the brickwork. The smoke of the city will, however, remedy that in a few months.

The entrance detail is simple, original and strictly in harmony with the building; it is not a piece of borrowed bric-a-brac.

Out on the prairie northwest of the city a sanitarium for consumptives has recently been erected, — from the same office, — very interesting in composition, though severe in detail and almost without ornament. The central portion only is shown, the wings being at present uncompleted. Here the square masses of the central tower and flanking pavilion, with their airy bays and grouped fenestration against plain wall surfaces, combine to produce a most agreeable effect.

In the house at Burton Place and North State Street the same feeling for square blocky masses and grouped openings is seen, somewhat modified by the exigencies of planning and much more refined in detail. Here a gray Roman pressed brick has been used, with bands and stylobate of Bedford stone, which about the doorway is richly carved with an original and beautiful "Sullivanesque" design.

A very successful three-story house, in which the third story is given an attic treatment without foolish sacrifice of livable height, is the one designed by Howard Shaw at 49th Street and Woodlawn Avenue. Here an almost bald squareness is relieved on one façade by the rather forced arcade treatment between bays, and on the Woodlawn Avenue end by the bowed cornice across the chimney.

The delicate bits of carved detail are effectively placed, redeeming a certain rudeness in the rough red bricks.

The entrance is very prettily managed with its splayed flat stone lintel serving as a hood. It is interesting to note here how well Mr. Shaw has managed the iron balcony without noticeably disturbing his cornice scheme.

The house at 5733 Lexington Avenue is equally good, although less original. An interesting feature is the use of comparatively light red headers with darker stretchers in Flemish bond. As for ornament it is abundantly supplied by a luxuriant growth of "Boston ivy," broad in scale and most refined, crisp and delicate in detail.

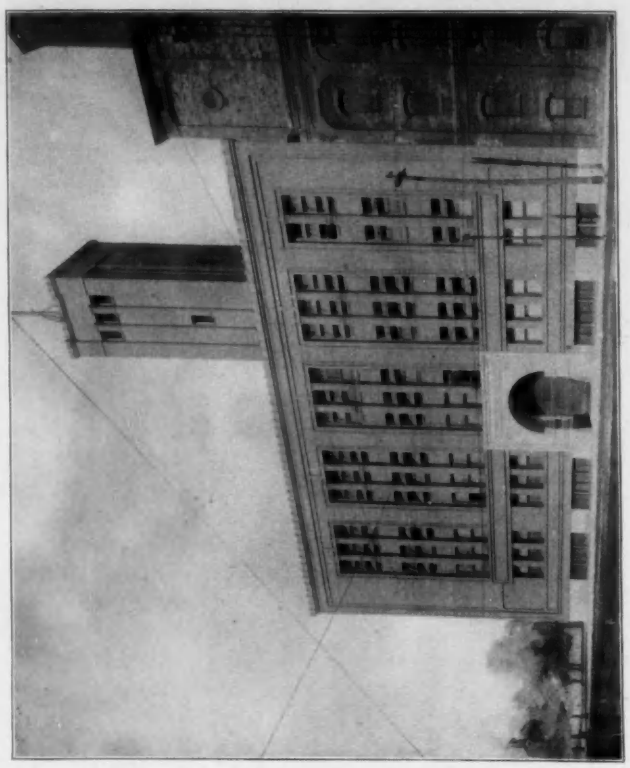
The house at 2106 Calumet Avenue is less successful than the two former, but shows the same restrained and refined use of detail, against a foil of plain red brick, and is also another illustration of the great restraint which is shown by many wealthy Chicagoans when it comes to spending money for domestic architecture in their own city.

In Evanston, the unannexable and aristocratic north shore suburb of Chicago, My-

HOUSE OF ALFRED H. GRANGER, ARCHITECT.

ron Hunt has done several notably good brick buildings; of these the most interesting and picturesque is the double house on Ridge Avenue. The balcony front of brick on a heavy timber lintel supported by solid timber braces is its happiest feature. Here, certainly, is a good house without architectural ornament, serving all the better as a foil for the drooping sprays from the flower boxes behind the balcony rail.

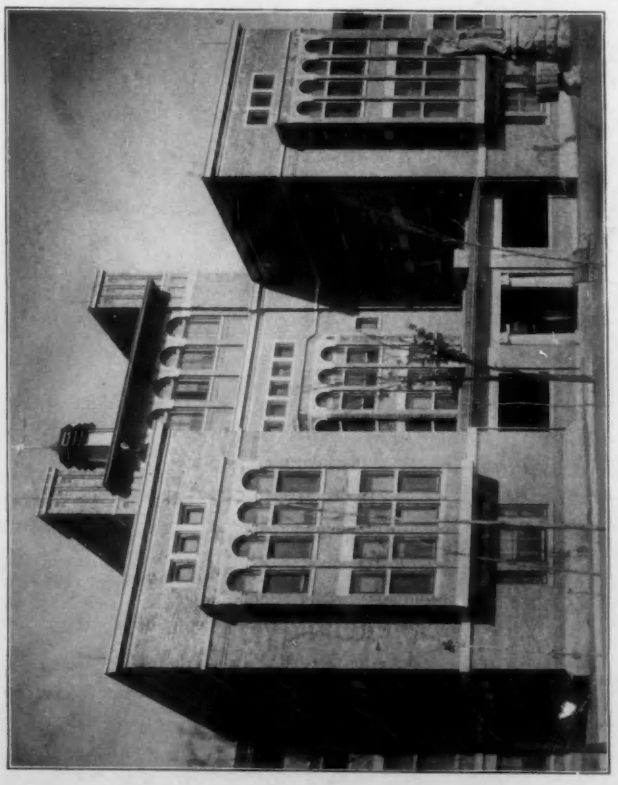
The apartment house on Chicago Avenue has a decidedly domestic air, as do the flat buildings on Orring-



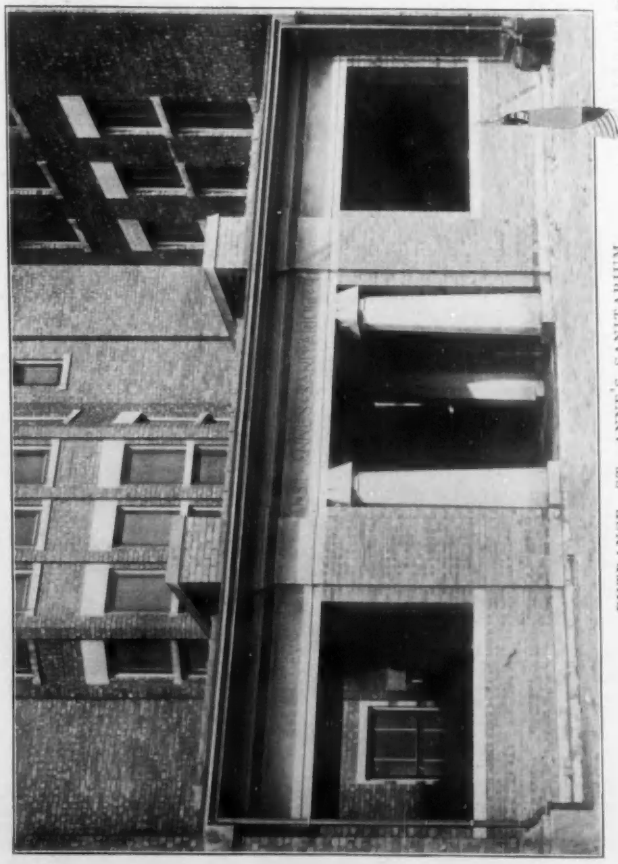
SCHOENHOFEN BREWERY.

HOUSE, BURTON PLACE.

Work of Richard E. Schmidt, Architect.



ST. ANNE'S SANITARIUM.



ENTRANCE, ST. ANNE'S SANITARIUM.

Work of Richard E. Schmidt, Architect.

ton Avenue and on Clark Street. Each is an agreeable departure from the stereotyped work of this class, so common nowadays in all large cities. Fortunately the citizens of Evanston have taken a firm stand against the invasion of cheaply built speculators' "flats," and the local building ordinances applying to buildings of this class are so rigid as to almost prohibit such structures.

The power house of the Yaryan Company is built of a dull buff brick, laid in an effective cross bond with well-proportioned openings and a good denticulated cove cornice.

It is always interesting to see what manner of house an architect builds for himself. The neighboring houses of Mr. Frost and of Mr. Granger at Lake Forest, the one formally informal, the other romantic and more picturesque, are greatly enhanced in effect by their beautiful setting.

Across the way from the University of Chicago campus on Lexington Avenue in a row of exceptionally good houses, occupied mostly by members of the faculty, are two designed by Hugh M. G. Garden. The one at the corner of 58th Street, opposite the Quadrangle Club, is one of the best examples of colonial adaptation to an unusual plan in Chicago.

HOUSE, FIFTY-EIGHTH STREET AND LEXINGTON AVENUE.
Hugh M. G. Garden, Architect

The pressed bricks of soft light red, laid with fine joints in white mortar, give a wall of a most agreeable tone. The details have been chosen from the best examples of old work and used with an unusual delicacy and restraint.

It may be of interest to remark that this is Mr. Garden's first and last work in this style. There is an argument or, at least, a "preachment" to be drawn from this fact, which it is doubtless wise to suppress. It might lead to a discussion of the old question of "progress before precedent," that one time alluringly alliterative slogan of the Architectural League of America. But to return to Lexington Avenue. The Herrick house, 5727 Lexington Avenue, is another one of those good plain houses which are satisfactory without external ornament, if less interesting and less inviting of close inspection than some others not one hundred miles from New York City.

HOUSE, KENWOOD, ILL.
Dwight H. Perkins, Architect.

HOUSE, 5727 LEXINGTON AVENUE.
Hugh M. G. Garden, Architect.

We are certainly learning restraint here, and I believe we rather like it. There is, after all, a very keen satisfaction in getting a pleasing and interesting building without a lot of features and "frills" that cost the owner good hard money, and which in a few years may go out of fashion.

HOUSE, FORTY-NINTH STREET AND WOODLAWN AVENUE.

HOUSE, 2106 CALUMET AVENUE.

ENTRANCE, HOUSE FORTY-NINTH STREET AND WOODLAWN AVENUE.

HOUSE, 5733 LEXINGTON AVENUE.

Work of Howard Shaw, Architect.

POWER HOUSE AT EVANSTON.

HOUSE, RIDGE AVENUE, EVANSTON.

APARTMENT, ORRINGTON AVENUE, EVANSTON.

APARTMENT, CHICAGO AVENUE, EVANSTON.

Work of Myron Hunt, Architect.

Recent School Building in St. Louis. II.

WILLIAM B. ITTNER, ARCHITECT.
BY S. L. SHERER.

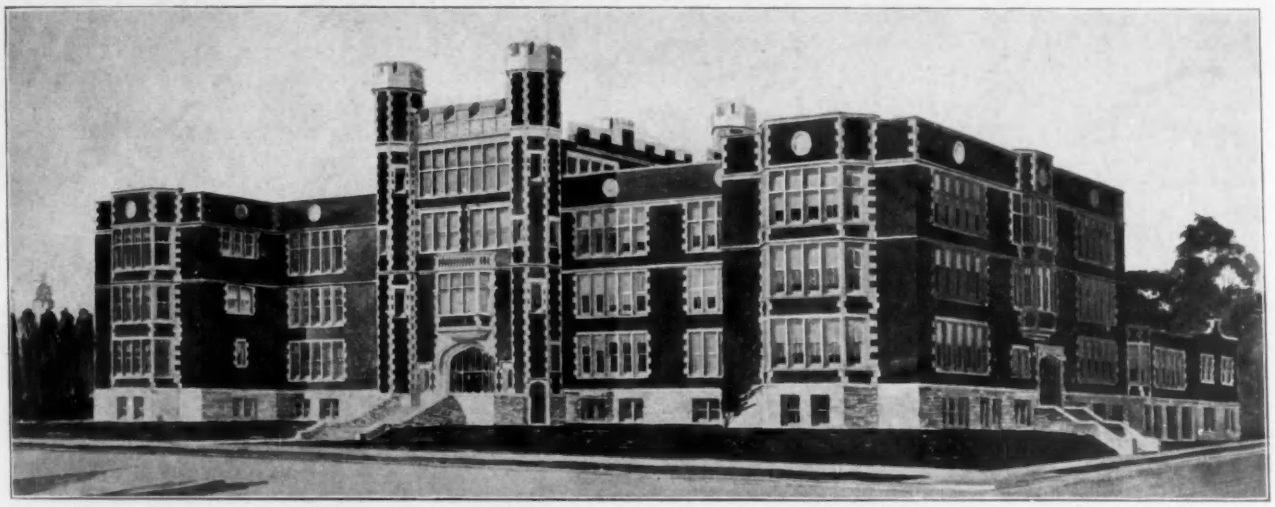
MANUAL TRAINING HIGH SCHOOLS.

THE idea of manual training, like that of the kindergarten, had its first trial in St. Louis, although introduced by Professor Woodward in Washington University in 1879, and not in the public schools. Now that it has passed the experimental stage in the schools, the Board of Education has deemed it advisable to add it to the curriculum of the new high schools, and thus supplement the work of the brain by the work of the hand.

The first of the schools in which this idea has dominated the plan is the William McKinley High School, and the plan well illustrates that expansion of the educational idea which is one of the marked tendencies of our time.

It shows a building almost square on plan (255 by 253 feet), and of a much more complex nature than the schools considered in article I. An imposing central entrance, flanked by octagonal towers, is supplemented by side entrances leading to the main corridor, twenty feet in width, from which give auxiliary corridors eight feet wide.

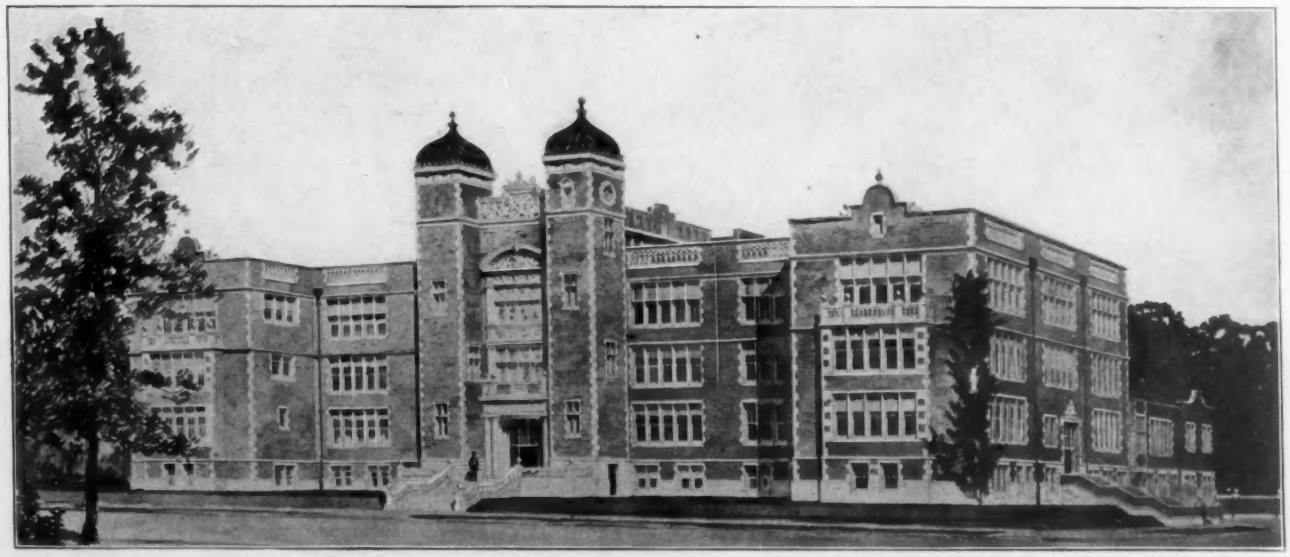
On the first floor there is a classroom for forty pupils, a reception room and principal's office; three laboratories devoted to the study of Chemistry, Physics and Biology, equipped for classes of twenty-four pupils, each laboratory having a lecture room for forty-eight pupils, a teacher's laboratory, a storeroom for apparatus, and a dark room for photography.



WILLIAM McKINLEY HIGH SCHOOL.

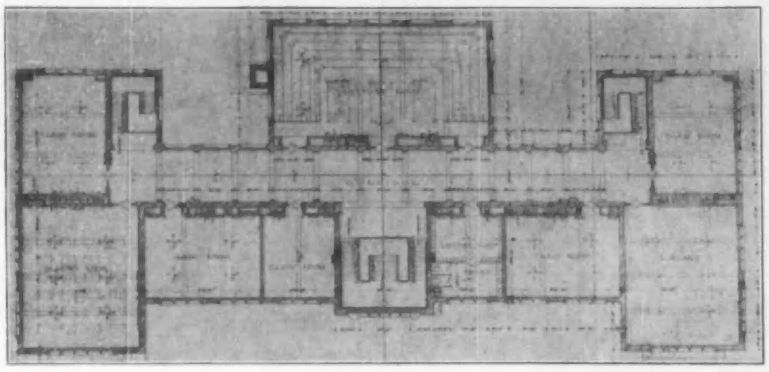
There are two woodworking shops 32 by 70 feet in size, one for carpentry, the other for wood turning and pattern work, each equipped for twenty-four pupils and each having a wash, locker and tool room, as well as a storage and stock room.

To provide for the manual training of girls, two rooms are devoted to Domestic Science, with a small model dining room adjoining, and one room for Sewing, each with its storeroom.



JAMES E. YEATMAN HIGH SCHOOL.

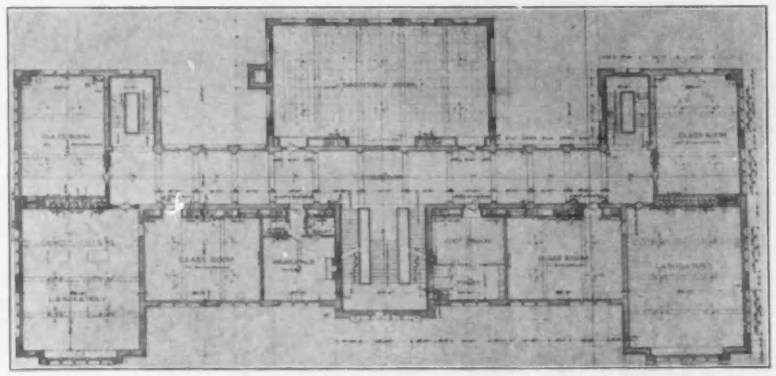
The auditorium is entered from the main corridor on the first floor and has a seating capacity of 736; the gallery is entered from the main corridor of the second floor and seats 216 pupils. It has a large stage and two dressing rooms, while coat rooms are provided near the entrance to the auditorium, which is arranged and equipped so it may be used for evening lectures.



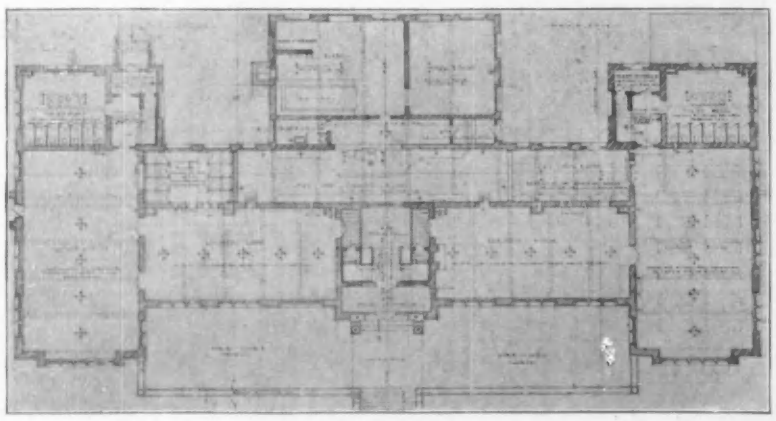
SECOND FLOOR PLAN.

The second floor has four 23 by 32 foot classrooms equipped for twenty-four pupils, four 28 by 32 foot rooms for forty-eight pupils, and two 32 by 41 foot rooms for seventy-two pupils. There is also a large room to be used as a library of reference.

The third floor has four classrooms equipped for sixty-four pupils and two rooms for ninety-eight pupils; also a 23 by 64 foot room for freehand drawing; a business room with necessary banking rooms, offices, etc., each equipped for forty-eight pupils; a large room for stenography and typewriting for twenty-four pupils; also a room for photography with dark room adjoining.



FIRST FLOOR PLAN.



GROUND FLOOR PLAN.

PLANS, NORMAL HIGH SCHOOL.

The classrooms were planned to enable the teacher to supervise the class at study, as well as to hear a class at recitation, provision being made for recitation chairs in addition to fixed seats, —an arrangement that obviates large study halls used for recitation only.

Where the central tower is carried above the third floor it provides space for a mechanical drawing room 72 by 32 feet in size, equipped for sections of forty-eight pupils, with two storage rooms and a room for blue printing.

In the basement, adjoining the entrance vestibules, are located the general locker rooms for each sex; small locker rooms being also provided on each floor in order not to concentrate lockers in one location. Retiring rooms adjoin the general locker rooms.

The boiler and coal rooms are located outside of the main building; the heating and ventilating apparatus and the electrical equipment for supplying power to shops have been installed under the auditorium, where an amphitheater seating forty-eight pupils is also located, in order that the dynamos and engines may serve for illustration and study by classes.

The blacksmithing and machine shops, each 40 by 84 feet in size and equipped for sections of twenty-four pupils, are located in the courts, lighted by skylights, and entered from main corridor through vestibules, thus preventing noise penetrating the building. Each shop has a storage, tool, locker and wash room.

There is a gymnasium 41 by 85 feet in size, with locker and shower baths for each sex; also a lunch room of the same dimensions, with kitchen adjoining.

The entrance for janitors, engineers, etc., is placed at rear of basement, and the head janitor's room commands a view of all entrances to the main corridor.

From the foregoing description, and by reference to the floor plans illustrated, which show more clearly the position of the rooms in their relation to the general scheme, it will be seen that Mr. Ittner has devised an ingenious plan that evinces much study, and one that promises to answer the multifarious requirements of a problem comparatively new in school architecture.

The constructional features follow the same general lines outlined in article I, except that the interior bearing walls are of brick in lieu of steel columns enclosed with hollow tile.

The brickwork is light red in color, laid with wide and deep horizontal joints, in courses composed of three stretchers and a header, the latter being flashed.

The cost of the building, exclusive of heating, ventilation and plumbing, will be $352,475, or $380,000 ready to receive equipment and furniture; the cost per cubic foot sixteen and nine-elevenths cents, while the cost per square foot of floor area will be $2.95, a sum considerably less than the cost of the old high school, not of fireproof construction, — a fact that demonstrates the efficient manner in which the new work has been administered.

The high school named in honor of James E. Yeatman is located in the northern part of the city, and will do for that section what the McKinley School will do for the southern district. It follows the same general plan developed in the latter school, and the differences that exist are of degree rather than of kind. The plan being practically the same, it naturally follows that the exterior design should reflect the same general treatment that characterized the design of the McKinley School, although the impression conveyed is that of a Jacobean rather than a Tudor design. The octagonal towers of the earlier building are replaced by square towers in the Yeatman, one of them being used as a clock tower. The design of the main entrance shows a mingling of English Renaissance detail, while the limiting of the end bays to two stories, the piercing of the parapet wall and other variations serve to distinguish the building from its prototype.

The brickwork is light red in color, laid in English garden wall bond, with wide joints of white mortar.

On the whole, the building exhibits the same well-considered plan and well-controlled design that distinguish the McKinley School.

In passing, it may be of interest to mention that in the naming of the new schools, civic pride has prompted the Board to perpetuate the names of eminent citizens of St. Louis, as well as associating some of the schools with names famous in education, literature and statecraft.

The cost of the building will be $307,766, exclusive of equipment, heating, ventilation, plumbing and wiring.

In the new Normal High School a somewhat different problem is presented in that it is to be devoted exclusively to the training of teachers. It will provide accommodation for two hundred and fifty young women who will receive a training that will fit them for service in the public schools of St. Louis. The building will be located immediately north of the Edward Wyman School and connected with same by a pergola, permitting communication between the two buildings and thus utilizing the Wyman School as an object lesson in practical teaching.

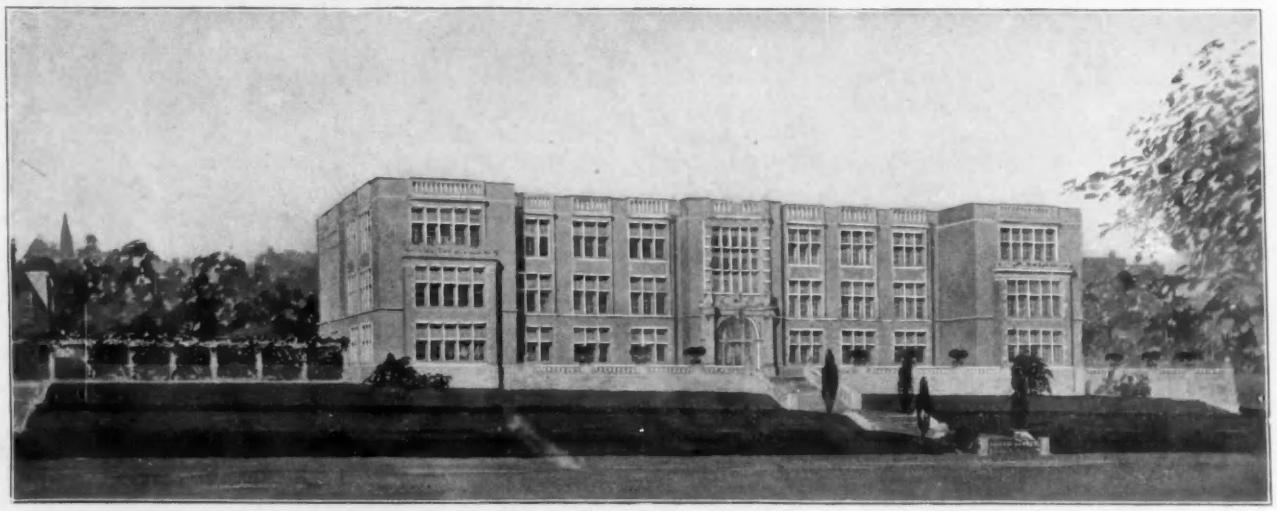
The plans illustrated show that the ground floor will contain, in addition to boiler, coal and toilet rooms, a gymnasium, a lunch room with serving room adjoining, a large locker room and a large morning room with fireplace.

The first floor will contain two large laboratories, an assembly room, four classrooms and the principal's office.

The second floor will have a library, drawing room, five classrooms and a lecture room or critique, with seats arranged on three sides and graduated in height.

It will thus be seen that an unusual opportunity has fallen to Mr. Ittner to design a school building whose function is wholly unlike the buildings heretofore considered.

The general architectural design harmonizes with, and conforms in a measure to, the adjoining school and the brickwork will partake of the same general character. There is here, as in the other buildings, an entire absence of any straining for effect not justified by the function expressed in the plan. Certainly the aspect of these school buildings leaves no doubt as to their purpose.



NORMAL HIGH SCHOOL.

That the schools illustrated in these articles show a marked advance upon previous school work in St. Louis, and that they will bear favorable comparison in design, construction and cost with the best school work thus far developed in the United States, is probably beyond contention. That they will demonstrate the wisdom of building schools of fireproof construction, thus insuring a feeling of security to parent, pupil and teacher, as well as reduced cost of maintenance; and that the expenditure for architectural fitness and the attainment of a beautiful environment is money well spent, and will bear good fruit in imparting higher ideals to the pupil, will be finally conceded by the people at large, as well as by those who contend that our educational institutions should reflect the best thought of the age in design, construction and equipment, thus fulfilling their true function as part of our educational system.

The Business Side of an Architect's Office. VI.

BY D. EVERETT WAID.

ARCHITECTS' FEES.

THE subject of architects' fees, treated in article V of this series, was greeted with an interest which led the editors of THE BRICKBUILDER and the writer to submit the following questions to a large number of the leading men of the profession throughout the country:

1. Will you kindly state what your charges are for professional services (or send a copy of your printed schedule)?

2. Do you find difficulty in charging more than five per cent for residence work or work costing less than $10,000?

3. What, in your opinion, is the proper charge for factory work, mercantile and office buildings?

4. Do you think it is common practice for architects to accept less than five per cent for office buildings or for work in general of large cost?

5. Do you find that clients decline to pay traveling expenses and fees for experts?

6. Observations as to the practice of submitting drawings without compensation in the hope of securing work;

7. On entering competitions without compensation;

8. On entering competitions in which prizes are offered;

9. On the desirability of charging clients, in addition to the regular fee, five per cent on sanitary, heating and electric work to cover expert service as recommended by the American Institute of Architects.

It is proposed here to present to the reader some of the answers received to these questions, in some instances individual replies and in others generalizations deduced from many replies.

Question One: The printed schedules which came in response to this question are essentially similar to those given in THE BRICKBUILDER for February, 1903. Several architects replied that they use the Institute schedule. It is a fact not only that the Institute schedule itself is used by very many members of the profession, but that this selfsame scale is a bulwark to the profession in general in the matter of fees.

It is therefore highly important that that official pronouncement be most carefully revised if it does not now represent the sense of the profession and does not inform the public clearly as to the main ethical points and fair charges which should obtain in the practice of architecture.

Question Two: Here are some of the answers:

"No."

"Except in special cases we refuse all work costing under $10,000."

"Some difficulty in collecting."

"Yes, but people are gradually becoming educated to it."

"If we charge more than five per cent, somebody else does the work."

"If I do the work the price is paid, but very, very often the work goes to those who charge but half."

"We do not find any special difficulty in getting seven and a half per cent on residence work and ten per cent for alterations."

"We have found by experience that we cannot do residence work at five per cent without an actual loss, and we prefer to eliminate such work entirely from our practice rather than to lower our rate below seven and a half per cent."

Some architects, like C. F. Schweinfurth and George W. Maher, invariably charge seven or seven and a half per cent for work costing less than $10,000. The profession is quite a unit in declaring that five per cent is inadequate to give proper service on residence work. Yet there is no doubt that the majority of architects, having small offices and doing perhaps most of the work with their own hands, charge five per cent. And while they do, larger firms take such commissions at the same rate at an actual loss even, as leaders to larger work which they might otherwise lose.

Question Three: The majority of replies say five per cent even for factories. Two firms say three and a half per cent for factories, others charge four per cent. The writer, not doubting that many factories of which he has no information were designed for three and a half per cent and even less, has been surprised to find that very many expensive plants going up to-day have been designed by architects who actually received five per cent for their work; and there is evidence that the owners consider the fee a good investment.

A prominent firm in Chicago writes: "Our charge for this class of work, including supervision, has been five per cent. In one case, which was a very plain factory building, merely a shell, we received four per cent. We feel that if a uniform charge of four per cent on office buildings over $500,000 is generally asked, the remuneration would be sufficient." Two other architects intimate that a slight reduction might be made from the five per cent rate on office buildings costing more than a million each.

With the exceptions stated, the weight of testimony is strongly in favor of five per cent as the proper charge on factory, mercantile and office buildings, and particularly is it true of those best known as the architects of large works. The profession will be interested in knowing that D. H. Burnham & Co. never charge less than five per cent for any class of work under any circumstances. We have the highest authority for making that as an absolute statement. A very similar assertion may be made regarding the practice of Holabird & Roche of Chicago, and Cass Gilbert of New York.

A member of the firm of Clinton & Russell gave the writer permission to quote him in this article: "Point to the Institute schedule and say that we never deviate from it. We get five per cent for all our office building work, except that which we do for the realty companies who build for themselves. The corporation of which the Fuller Construction Company is a part, for example, pays us three and one-half per cent on their buildings and do their own superintending."

George B. Post states that in the past twenty-five years he has not done even the largest work for less than five per cent. He, with Clinton & Russell, aver in the

most emphatic way that architects cannot afford to do their work, if they do it thoroughly as it should be done, for less than five per cent. This seems incredible to young architects who have counted themselves prosperous out of the fees on five thousand dollar houses. It is incredible because they do not realize that as soon as work becomes too large to be done all with one's own hands he must carry an expensive office and office force. Mr. Post's business has been of the most lucrative kind, including, as it has, but a comparatively small amount of residence work. His office is carefully conducted on a business basis, with no extravagant salaries, and yet his expenditures, as shown by exact systematic records extending over a long series of years (the exact figures Mr. Post showed to the writer), have been enormous and amounted to two and one-half per cent; that is to say, his actual cash expense, not counting any allowance for his own time, was one-half the fees. For a series of three years at one period when prices of building materials were low, although Mr. Post had a large amount of work on hand, his actual office cost was three and one-half per cent. Mr. Post calls attention to one fact which will surprise less experienced architects, and that is that the cheaper and simpler class of office buildings cost the architect more in proportion than more expensive and elaborate buildings. It need hardly be said to architects that all this presupposes that we are referring to work thoroughly and properly designed and detailed and effectively supervised. A two per cent architect perhaps makes as much money in his own way as a five per cent man, but he, as plenty of illustrations prove, produces obviously two per cent buildings. If any of our readers will put away the temptation to win his first important piece of work by cutting his price with the hope thereby of establishing his reputation (and many a well-known architect must admit that he did that very thing), and if we can help in the struggle of architects to place competition among themselves on a basis above price, we will have done something toward attaining recognition of the architect as a professional man with the high standing which he deserves. Let every architect fight for the regular schedule as a minimum corresponding to the physicians' "stated charge per visit," and look forward to the time when the prestige of his executed work will permit him to increase his rates, as does the famous surgeon doing a $5,000 operation.

Question Four: Some answered, "No." Two or three said, "Unfortunately, yes." Others more guarded, "We have reason to believe that such is sometimes the case;" and another, "No, the cutting of rates is more general in the cheaper class of work."

Eames & Young, St. Louis, write: "Yes, quite common for them to accept almost any kind of offer."

Clinton & Russell say: "We have had prospective clients tell us that Mr. So-and-so offers to do this work for two and one-half per cent. We reply that if it is a matter of price, we must lose the commission. An architect cannot afford to take work for less than five per cent if he does it thoroughly, as it should be done."

Another well-known New York architect writes: "I believe some architects do accept less than five per cent for buildings of simple design and construction and of great cost, such as large loft buildings, plain office buildings, etc.; but if proper attention be given, I do not understand how they could do it for a smaller amount; I myself have never done so."

Question Five: The general response to this query indicates that the payment of traveling expenses in addition to the regular fee is a well-recognized custom. One firm writes: "Where our work is out of town, we generally have it understood and agreed in the beginning that the client pay all traveling expenses, and we have always found where this matter is discussed in the beginning, there is no trouble." The subject of traveling expenses, however, has quite another phase to those architects who take work, not exactly "out of town," but in other cities where they have to come into competition with local men. This, of course, does not refer to those practitioners who, by reason of conspicuous ability and reputation, are independent in the matter of fees. In this connection Patton & Miller of Chicago write of a problem which interests almost all architects at times: "We offset the cost of traveling expenses to a certain extent by insisting upon the employment of a clerk of the works, or local superintendent, to be paid for in addition to our regular fees. We do not notice this among your questions, but it seems to us an important point as to what extent architects procure the services of a clerk of the works at the expense of the owner. We might say that our work at a distance from Chicago is superintended in one of two methods: the first, by the employment of a firm of local architects, who take entire charge of the superintendence, and we divide our commissions with them. In some cases we secure an addition to the five per cent commission. Where we do not have local architects take charge of the superintendence, we insist upon the employment of a clerk of the works. In such a case we limit the number of visits to one a month, or in small work to, say, two or three trips of inspection during the progress of the work. By reducing the number of trips for small work, we keep down the cost of traveling expenses, and we have found it much easier to persuade building committees to employ a local superintendent, outside of our fees, than it is to pay us traveling expenses."

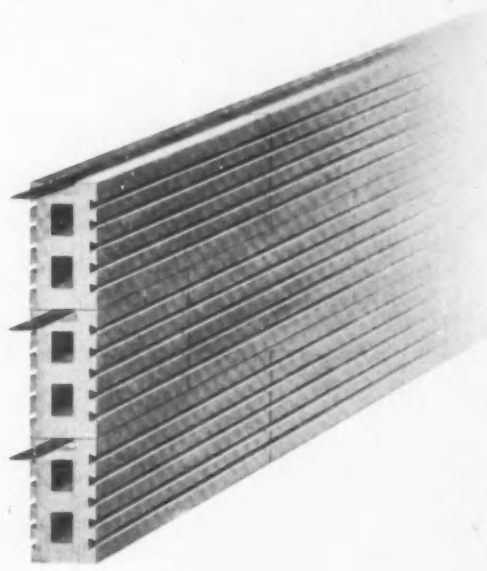
In another article I shall touch upon the remaining questions submitted and the replies received to same.

THE design submitted by Architects Pond & Pond for the new Federal building for the occupancy of the post office at Kankakee, Ill., has been accepted by the Treasury Department and as soon as the details are completed, work on the building will proceed. The selection of a design for this building is a matter of considerable interest, inasmuch as it is the first that has been made under the recent ruling of the Treasury Department under what is well known as the Tarnsey Act providing for competition among leading architects for public buildings. Heretofore the Tarnsey Act as interpreted by the Treasury Department has been made to apply only to the larger cities of the country in which buildings of considerable cost were to be erected. Under the recent ruling, however, of the Department the buildings in the smaller cities now come within the provision of that act, affording a generous opportunity for people who wish to compete for work of this class.

Fireproofing.

A NEW WALL CONSTRUCTION.

WE have had frequent occasion in these columns to call attention to the tentative use which has been made of hollow terra-cotta tile in the construction of walls. Material of this description possesses so many and such obvious advantages that only lack of familiarity stands in the way of its very extended employment for all classes of buildings in which lightness, dryness, protection against change of temperature, and low cost are to be desired. It has so far been used only in a very few cases in such a manner as to show its highest artistic possibilities: but as architects become more familiar with it, it is sure to develop a perfectly rational, æsthetic treatment which can be thoroughly in accord with its structural possibilities. As at present used it has been confined mostly to storehouses, train sheds, stations, tank houses, and mills, though we have noted in another issue a few cases where it was used with great success in small isolated structures. Under the name of the Phœnix Hollow Tile Wall Construction the use of this material has been reduced to a system which has proven extremely satisfactory.



PHŒNIX HOLLOW TILE WALL CONSTRUCTION.

(Patented by Henry Maurer & Son.)

The American Smelting and Refining Company last year erected in Perth Amboy a tank house 350 feet long by 200 feet wide and 24 feet 6 inches high, in which the walls were constructed with a framework of twelve-inch vertical I beams spaced sixteen inches on centers, the enclosed wall being laid up with hard burned terra-cotta hollow blocks four inches thick and eight by twelve inches. On every second course of blocks and fitted in grooves thereon strips of band iron one by one-eighth inch were laid in Portland cement and riveted to the I beams with one by five-sixteenths inch rivets, thereby securing great tensile strength to the wall. The engineer in charge considered such construction as fully meeting all requirements and as being equivalent in strength to a solid twelve-inch wall, while the saving in cost over the solid brick was fully one-third, and the difference in weight under brick was 1,700,000 pounds. Besides this, the construction was much more rapidly erected than brick and was drier and warmer.

The Barber Asphalt Paving Company also adopted the Phœnix system for the walls of their different buildings at Perth Amboy; besides which several other buildings are in process of construction, one now being erected with walls 255 feet long. In all of these the terra-cotta blocks were four inches thick. Where heavier walls are desired the thickness of blocks would of course be correspondingly increased.

This construction not only saves in cost of the wall itself, but it also makes possible a very material reduction in the cost of foundations, as bearing is required only under the upright I beams and a very slight footing course under the intervening space.

The comparative cost and weight of a wall of common brick and one of Phœnix hollow tile is as follows:

Brick Wall, per 1000.

1000 brick		$7.25
1 barrel Portland cement		2.50
1 barrel lime		1.25
1 cubic yard sand		1.25
Labor: A mason will lay in 8 hours at 65 cents, 1200 bricks	$5.20	
Helper, 8 hours at 37½c	3.00	
Total for 1200 bricks	$8.20	
Or, labor per 1000		6.33
Cost of brick per 1000, laid		$18.58

Counting 190 brick to the square yard makes the cost per square yard of brick wall 12 inches thick, $3.55.

Phœnix Wall Construction.

Steel work, including one 6-inch upright I beam every 15 feet, or for each 25 square yards of wall, 8.84 lbs. per yard, at $2.65 per 100 lbs.		$ .24
Band iron, 1-16 inch x 1 inch, 350 lineal feet for each 25 square yards, or 1¼ lbs. per yard, at $3.20 per 100		.04
Portland cement, for every 150 square feet, 1 barrel	$2.50	
Sand, ¼ cubic yard	.63	
Per 150 square feet	$3.13	

NEW WORKS, BARBER ASPHALT PAVING COMPANY.

Per square yard - - - - - - - - -	.19
Phœnix blocks, 9 per square yard, at 12 cents - -	1.08
Labor: A mason and helper will in one day lay 150 square feet of these blocks at a cost of $8.20 for 150 square feet, or per yard - - - - - -	.50
Cost per square yard of Phœnix wall - - -	$2.05

Scaffolding is omitted in both the above estimates, the cost being about equal.

Compared by weight, a brick wall containing 190 bricks per square yard at 4 lbs. each weighs 760 lbs.; whereas 13½ Phœnix blocks occupying the same space at 16 lbs. each weigh only 216 lbs. Applying these to a wall 200 feet long, if built of brick, and 12 inches thick, it would weigh about 252,000 lbs., as against 75,479 lbs. if constructed of Phœnix blocks and steel.

SHORTLY after the Boston fire of 1872, Capt. John S. Damrell, who had been the Chief of the Fire Department, was appointed to the office of Building Commissioner, having charge of the department for the supervision of buildings throughout the city. Captain Damrell's resignation from this office was accepted by the mayor last spring. While he has been at the head of the Building Department the country has passed through the greatest building epoch it has ever seen. During the decade just completed the system of steel skeleton construction has been introduced into the city and brought to its present development. In 1872 a six-story structure was exceptional. To-day nothing but the restrictions of the law prevent us from going to fifty stories. During this time the city has nearly trebled in population and the whole business portion has been entirely rebuilt. It speaks well for Captain Damrell's ability and his personal integrity that the affairs of his office were from first to last conducted in such an admirable manner; and we know of no city in the country in which there has been so long a tenure of office for so important a position. The Commissioner who has just been appointed to succeed him is Mr. James Mulcahy, an architect of acknowledged standing and large experience in Boston. The office is one which rightly ought to be filled by an architect, and it is certainly a matter of congratulation to the city that an architect can be willing to forego his private practice and take upon himself the thankless tasks which are involved in the routine work of the department. Building commissioners are usually selected from the ranks of builders, but any argument which would apply in favor of such choice would apply even more strongly to the selection of an architect who would be able to appreciate so much more thoroughly the æsthetic considerations which very often largely control the practical constructional methods, and Mr. Mulcahy has an opportunity before him to not merely administer the laws in their true meaning and intent, but to also materially help in the development of good construction and better architecture. Usually the building commissioners and the architects are inclined to regard each other as natural enemies, to be circumvented by all possible legal methods, but with the inspectors and the architects working in harmony, applying a broad, common-sense interpretation to the necessarily obscure requirements of a complicated law, the results cannot fail to be interesting and valuable to all concerned.

There is one respect in which the existing laws respecting fireproofing in Boston are far from satisfactory, in that they demand at once too much and too little. According to the letter of the statute all structural steel of every sort must be protected against the action of heat. This clause is so sweeping and its application at times so obviously absurd that we recall one instance in which a coat of fireproof paint applied to the members of a truss over a shed was accepted as compliance with the law. There was absolutely no necessity for any fireproofing whatever in this particular case, and there arise many instances in daily practice where a beam or column might be entirely melted away without affecting in the slightest degree the stability of the structure. In such cases fireproofing constitutes an unnecessary tax which is better dispensed with. On the other hand, we will venture to say that three-quarters of the so-called fireproof construction with materials other than burned clay or terra-cotta has very little practical value, and if fireproofing is to be done at all it ought to be more efficient. It is not in practice at all difficult to strike a reasonable average in this matter. The difficulty is in so framing and applying a law that shall neither allow a loophole for carelessness nor rascality nor be an undue tax increasing unnecessarily the expense of good building. Our laws should encourage reasonable economy in construction quite as much as they should discourage bad building; and in the endeavor to make our laws comprehensive we have in some cases, and especially in some portions of the Boston Building Law, carried fireproofing to an extreme. It is now proposed to appoint a commission to revise the statutes having these points especially in view.

FIREPROOF STAIRWAYS.

HOWEVER much question there may be as to the equitable manner in which New York building inspectors are permitted to exercise their discretion, the building law of that city is in many respects the best in the country, and it goes into scientific details to an extent that no other municipal ordinance has followed. The changes which from time to time have been made have been on the whole judicious ones and in accordance with scientific knowledge, and if the laws are not rightly enforced or do not always produce the best results, the trouble is seldom with the wording of the statutes. One of the latest changes is in regard to stairways in fireproof buildings. Heretofore, a construction including iron stringers, cast iron risers and slate or marble treads was considered sufficient; but it was found by fatal experience that the combined action of sudden heat and water would so shatter either marble or slate that a platform or tread might be totally inadequate to bear the weight of a single individual. The law consequently now provides that where slate or stone is used, such material shall rest upon a solid tread of wrought or cast iron. Unfortunately compositions of concrete, which in our judgment are quite as liable to disintegrate as either marble or slate, are still allowed to pass the law. Undoubtedly the most perfect construction which could be devised for this purpose would be hollow terra-cotta blocks, which have been made to form the riser, tread and soffit of each step in a single piece, and which can be built up in place in same manner as some of the older constructions in stone so as to be self-supporting and not requiring the use of steel.

Selected Miscellany.

EXTERIOR PLASTERING ON IRON LATHING.

We have recently been shown a slab of cement plastering with sheet-iron lathing attached which was removed from the exterior walls of a house built not over five years ago. The iron lathing had suffered so much destruction from rust that it had caused cracks and leaks in the plastering, so that the entire exterior of house had to be removed and replaced by wooden finish; this and repairs of interior of house, necessitated by leaky walls, entailed a very considerable expense.

If the construction of walls and roofs, including the needed flashings, is in any way defective, water will of course find its way to the back of lathing and plastering;

DETAIL BY BEEZER BROTHERS, ARCHITECTS.
Northwestern Terra-Cotta Co., Makers.

but even if walls and roofs are water-tight, a certain amount of moisture is certain to be condensed between plaster and wooden sheathing of outside walls. Iron lathing not protected by cement, waterproof coating or galvanizing and subjected to even a slight amount of moisture must speedily perish, with disastrous effect to the exterior plastering. It should be remembered also that a wooden frame exposed to high winds may rack enough to form cracks in cement plastering, which at the best is decidedly brittle. Through cracks in the exterior walls the wind will certainly drive rain at every opportunity.

If the lathing used for exterior work is of such a nature that cement mortar is not forced through its mesh sufficiently to cover all iron surfaces, it is evident rust will attack the lath unless it is sufficiently covered by paint, waterproofing or galvanizing.

It is possible that a wire lathing might be entirely preserved by cement plastering, even if painting or other protection was not employed, but it would seem as if wire lathing galvanized is the safest material to use if speedy destruction of plaster is to be avoided.

UNIFORM BRICK DIMENSIONS.

After efforts extended through many years a standard for building brick has been agreed upon between the Royal Institute of British Architects and the Brick Makers' Association, together with representatives of the Institution of Civil Engineers, and has been ordered to go into force on May 1, 1904. The length of the brick is to be double the width plus the thickness of one vertical joint, and the thickness of the brick should be such that four courses and four joints would lay up one foot in height. Joints should be five-sixteenths for the bed, thus giving a standard length of nine and one-fourth inches from center to center of joints.

DETAIL BY ISRAELS & HARDER, ARCHITECTS.
New Jersey Terra-Cotta Co., Makers.

The bricks, laid dry, to be measured in the following manner:

A. Eight stretchers laid square end and splay end in contact in a straight line to measure seventy-two inches.

B. Eight headers laid side to side, frog upwards, in a straight line to measure thirty-five inches.

C. Eight bricks, the first brick frog downwards, and then alternately frog to frog and back to back, to measure twenty-one and one-half inches.

A margin of one inch less will be allowed as to A, and a half inch less as to B and C.

DETAIL BY BARNEY & CHAPMAN, ARCHITECTS.
Conkling-Armstrong Terra-Cotta Co., Makers.

This is to apply to all classes of walling bricks, both machine and hand made.

The advantage of uniformity in this direction is so obvious to every one that some such concerted action is bound to come in time in this country, and will surely be welcomed by every one who has ever had to bother over the lengths of brick and the jointing.

BRICKLAYING BY MACHINERY.

We note accounts of the trials which have been made of the machine invented by a London engineer for laying bricks. The machine is of quite simple design and is intended to do for bricklaying what the sewing machine has done for needlework, and the hydraulic riveter for bridge and boiler work. It works on a girder capable of being raised as the work progresses, and travels along the girder by means of a pinion gear and chain. The bricks are fed to the machine by hand, being pushed into position by a lever and kept plumb by revolving rollers at the side. Three men are required for the operation, one to spread the mortar, one to feed the machine, and a third to work the mechanism. It is claimed that six hundred bricks per hour can be laid with this machine as against five hundred per day by hand, which appears to be the average for brick masons in England, or twelve hundred a day, the amount to which we are accustomed on this side of the water. There is no mechanical reason why a contrivance of this sort should not be perfectly adaptable for plain work and heavy walls, and if helped out by hand labor at angles and restricted lengths it could undoubtedly effect material saving in expense. When it comes to work around windows and building about a steel framework a machine would apparently be totally inadequate.

PEDIMENT PANEL, REID BROTHERS, ARCHITECTS.
Perth Amboy Terra-Cotta Co., Makers.

MODEL TENEMENTS.

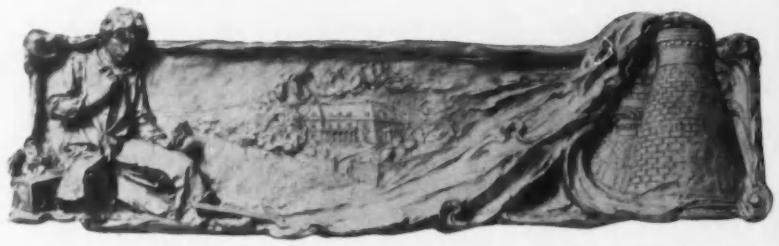
That model tenements can be erected and run in American cities on a remunerative basis, while furnishing comfortable and sanitary homes for the poorer classes of the community, has been proven in a number of instances; but no more striking illustration can be offered of the practical results of these substitutes for the crowded rookeries which have heretofore disgraced many large cities than the latest report of the City and Suburban Homes Company of New York City. This company was organized six or seven years ago, and, backed by a number of philanthropic capitalists, began the work of erecting model tenements for the poor and the humbler wage-earning classes. The company has issued $1,707,250 of capital

FIREPLACE IN LOUNGING ROOM, TENNIS AND RACQUET CLUB, BOSTON.
Parker & Thomas, Architects.

PANEL FOR BAY WINDOW.
Executed in Terra-Cotta by White Brick and Terra-Cotta Co.

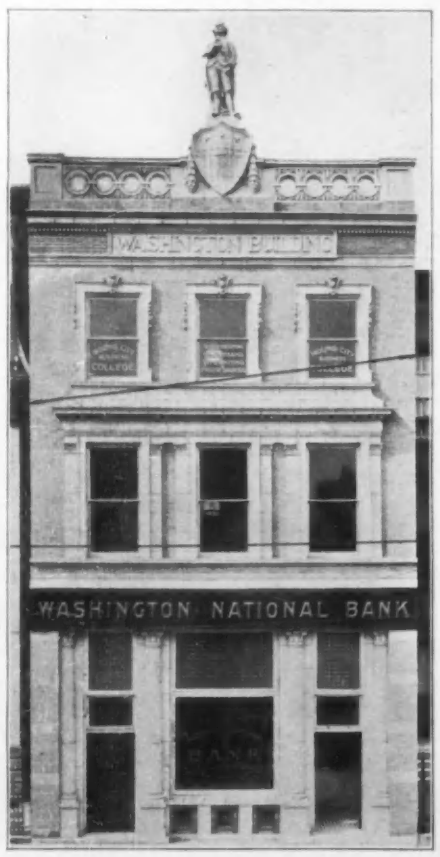
CAPITAL EXECUTED IN TERRA-COTTA.
St. Louis Terra-Cotta Co., Makers.

stock, and its total assets are now figured at nearly $3,000,000. It has just declared a dividend of four per cent, while leaving a large sum for the sinking fund. The report states that the losses which have been met with from vacancies in apartments have been extremely small, while the total losses from irrecoverable arrears are insignificant, being but $248. In view of the fact that the company has three hundred and sixty-two separate families as tenants, and that the character of the population in which its buildings are located is notably a shifting one, this showing is remarkably satisfactory. So successful has the company been in managing its own properties that it has recently taken over the management of six hundred and ninty-nine apartments which belong to other persons or companies. It has a trained corps of workers, sufficient to enable the concern to be an efficient operating landlord. The benefits conferred by the class of housing provided by the company are incalculable, not only from the point of view of comfort, but notably from that of sanitation and morals. Undoubtedly a need exists for the inauguration of similar enterprises in other of our large cities. Every great center of population has some kind of a tenement or slum district where model tenements would be a public benefit. American men of wealth could invest their spare capital in no better way than in providing for the erection and management on honest and common-sense lines of model tenements for the wage-earning classes. — *Carpentry and Building.*



PANEL FOR OFFICE OF BRICK TERRA-COTTA AND SUPPLY CO., CORNING, N. Y.
Louis Urich, Sculptor.

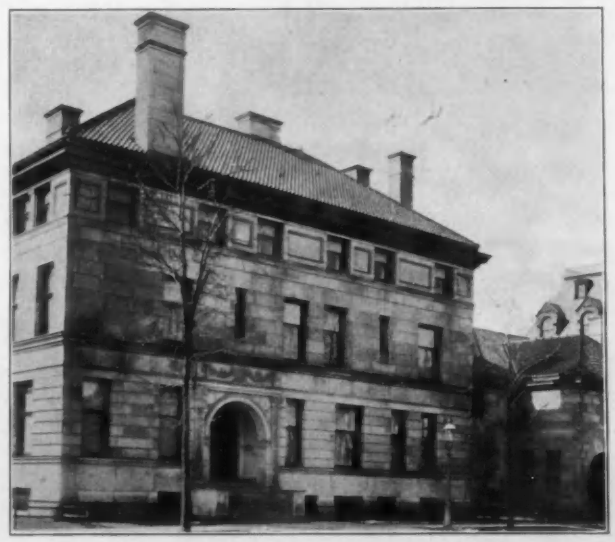
PANEL BY CLINTON & RUSSELL, ARCHITECTS.
Atlantic Terra-Cotta Co., Makers.



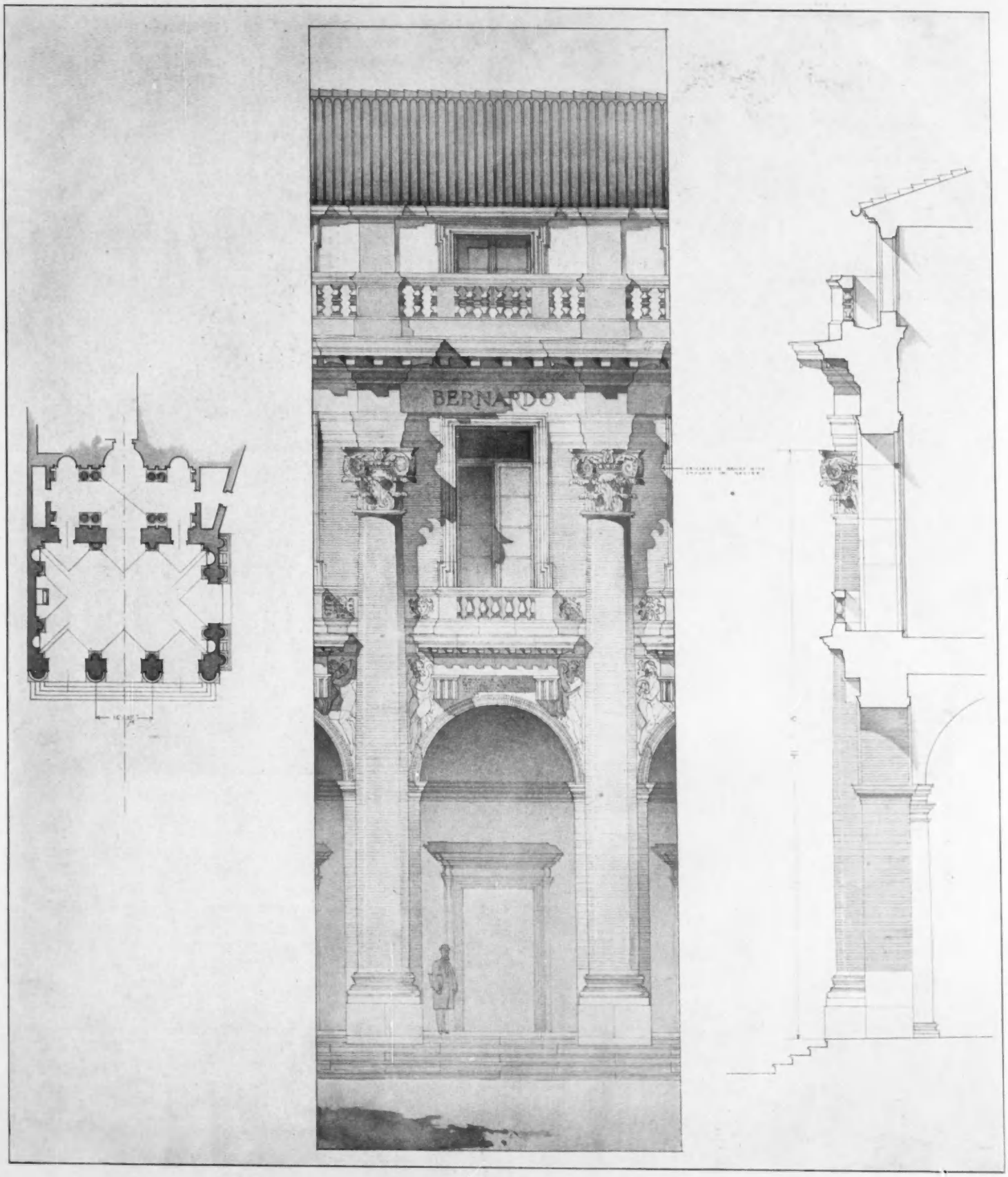
BANK BUILDING, ST. LOUIS, MO.
Terra-Cotta by the Winkle Terra-Cotta Co.

DEFECTIVE FIRE-PLACES.

Mr. Max Clarke, A. R. I. B. A., in an address made at the fire congress recently held in London, referred to some of the defects in fireplaces and flues which are being repeated every day in modern building work. "Few," he said, "know



HOUSE, CHICAGO, ILL.
Jenny & Mundie, Architects. Roofed with Ludowici Roofing Tile.

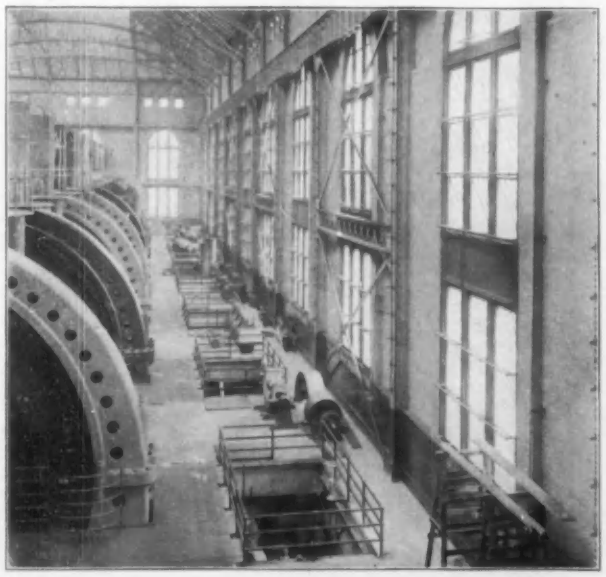


TOWN HALL, VIACENZA, ITALY.
Measured and Drawn by William L. Welton, Rotch Traveling Scholar.

STEVENS BUILDING, DETROIT, MICH.
Donaldson & Meier, Architects.
Built of "Ironclay" Brick.

the number of fires caused by defects in and about the fireplace. Personally I am disposed to think that most of the causes are brought about by careless workmanship and a few perhaps by the use of methods which were quite adequate in former times, before the invention of what are now called slow-combustion stoves, close ranges, boilers and the like. I place first in point of danger the practice of building half-brick trimmer arches to carry hearths in wooden floors, the arches having the centering left in and forming an open space under the brickwork. The underside of this space is lathed with wood laths and plastered in the same plane, as a rule, as the rest of the ceiling This form of hearth should give place, in my opinion, to a concrete or other self-supporting hearth the full depth of the floor joists, having a flat soffit on which the plaster could be applied direct. Next I should like to advocate the use of fireclay linings to all flues, a common practice in many districts, but not in use as a rule in London. Improperly bonded and badly built flues, the brickwork of which is only four and one-half inches thick and in which bad mortar forms a considerable component part and which after a time drops out, leaving the joints open. This is often assisted or caused by the nails, spikes or plugs, driven in for the purpose of fixing inflammable finishings. All these defects lead to a considerable number of fires annually, the details of which I am sure my insurance friends know a great deal more about than I do. Wood finishings should not be fixed with iron spikes in front of flues unless the brickwork is of a greater thickness than four and one-half inches; in fact it is probable that a great safeguard against fire would be effected if woodwork in such proximity to flues was abandoned altogether. It seems to me a cause of danger that flues built with only half-brick surroundings are at times used for high-pressure boilers, kitcheners and the like, the brickwork being quite hot when work is in progress and in many cases much too hot for safety. New types of stoves of either the 'slow-combustion' or 'well-fire' classes should not be fixed in old houses unless a thorough examination of the hearth and its surroundings is made, numerous fires having been caused from timbers being in close proximity to chimney breasts, quite unknown to the people who fixed new and powerful stoves in old openings."

DETAIL BY KEES & COLBURN, ARCHITECTS.
American Terra-Cotta and Ceramic Co., Makers.



INTERIOR EDISON POWER HOUSE, NEW YORK CITY.
J. Van Vleck, Architect.
For which 50,000 second quality enameled brick were supplied by American Enamel Brick and Tile Co.

IN GENERAL.

The outlook in New York City at this writing can scarcely be called encouraging, but the chances are that

GRAND STAIRCASE, GUASTAVINO CONSTRUCTION.
DEPARTMENT STORE, PATERSON, N. J.
Treads and risers ready to receive finish.

the spring will see the relations between employers and their men on a firmer basis, prices of materials will be lower, and building will boom.

Probably McKim, Mead & White have more new work in prospect than any other large firm of architects. They are making preliminary plans for a new building for the Harmonie Club, to be built on Sixtieth Street, near Fifth Avenue. It will be a seven-story building and will be a combination clubhouse and apartment house. They are at work on final plans for the new building for the Lambs' Club to be built on Seventy-sixth Street. Plans for the new Madison Square Presbyterian Church are also being prepared in this office. The plans for the Pennsylvania Railroad's terminal are completed. Preliminary plans are being made for the School of Journalism for Columbia University, the gift of Joseph Pulitzer.

During the past two months four new theaters have been opened in New York City. There has been considerable doubt as to whether New York can support so many, and it may mean a financial loss to some one. These new theaters have characteristics which put them in a different class from the old ones. Their location is exceptional, their excellent planning and ventilation mean a great deal for the public comfort, and they show an enormous advance over the earlier New York theaters in good looks.

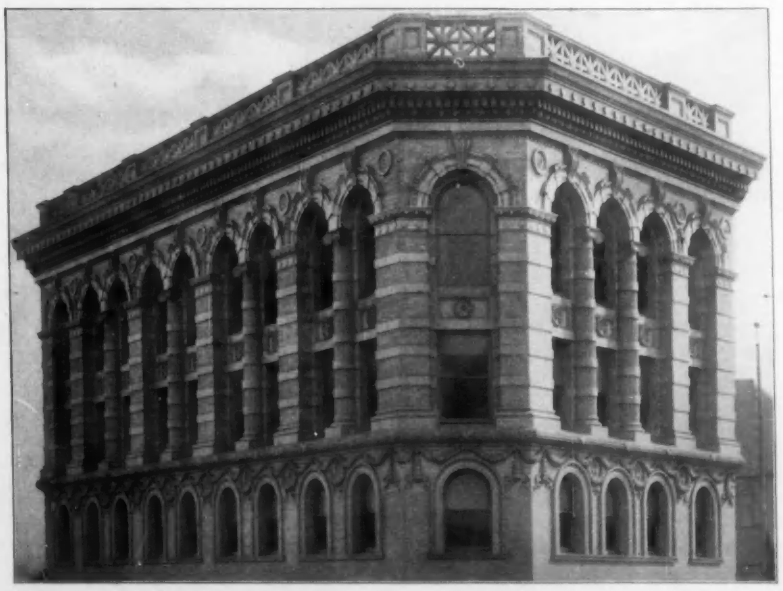
DETAIL BY J. E. ALLISON, ARCHITECT.
Excelsior Terra-Cotta Co., Makers.

Chester H. Aldrich and Carrère & Hastings, associate architects, should have been given credit for the house at Providence, R. I., illustrated in THE BRICKBUILDER for October, instead of Carrère & Hastings, as stated.

The Boston Society of Architects and the Boston Architectural Club dined together on the evening of November 5 and entertained as special guests Mr. Albert Kelsey of Philadelphia, Rev. Charles Fleischer of Cambridge, Mr. Meyer Bloomfield of the Civic Service House, Mr. Leslie C. Wead and Professor Hugo Meyer of the committee appointed by the governor on the investigation of the wider use of the right of eminent domain, and Mr. J. Randolph Coolidge, Jr., secretary of the legislative committee of the Society of Architects, who discussed "The Artistic Development of the City."

The happenings at the Boston Architectural Club indicate a season of unusual activity. Already there have been exhibitions of water colors and sketches by well-known men, and many of the members have visited in a body places of unusual interest about the city.

The Washington Architectural Club, too, is engaged in carrying out a program



UPPER PORTION OF TWELVE-STORY BUILDING, BROADWAY, NEW YORK CITY.
Robert Maynicke, Architect.
Terra-Cotta furnished by New York Architectural Terra-Cotta Co.

CHAMBER OF COMMERCE, MINNEAPOLIS, MINN.

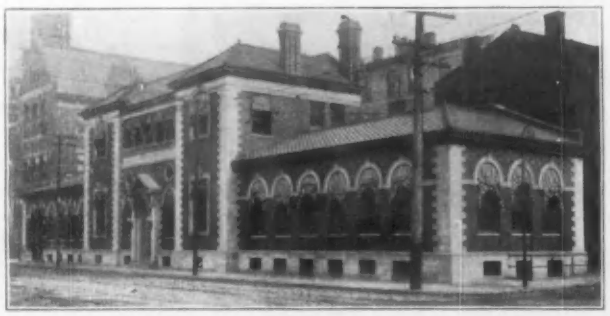
Kees & Colburn, Architects.

Built of gray speckled Norman brick, made by Columbus Brick and Terra-Cotta Co. Terra-Cotta by American Terra-Cotta and Ceramic Co.

which keeps its members busy. It includes lectures or talks on interesting subjects by prominent men and a series of club competitions, with criticisms, awards, etc.

This is all good work along the right lines. It brings the younger men into a closer relationship and encourages a unity of purpose which is bound to be beneficial to the profession as a whole. Let us have real, live architectural clubs in all the cities, clubs which shall be a benefit, not only to its members, but to the community in which it lives.

Robert C. Sweatt, architect, has opened an office at Sault Ste. Marie, Mich., and desires manufacturers' catalogues and samples.



C. N. & C. LIGHT AND TRACTION CO. OFFICE BUILDING, COVINGTON, KY.

Dittoe & Wisenall, Architects.

Roofed with American S Tile, made by Cincinnati Roofing Tile and Terra-Cotta Co.

The Celadon Roofing Tile Company has recently added two new kilns and extensions to both press and dry rooms, also a number of additional workmen, to its Alfred, N. Y., works, thereby increasing its capacity by about forty thousand tile annually. The company has completed a large number of contracts the past season and has on hand the largest amount of orders in its history for the present season of the year.

R. Guastavino Company announce that they have removed their Boston office to Old South Building, corner of Washington and Milk streets.

Herbert C. Chivers, architect, St. Louis, would like new catalogues of companies manufacturing architectural and engineering lines.

The Atlanta Terra-Cotta Company, of Atlanta, Ga., is now building in that city an entirely new plant, which when finished will be one of the most up-to-date plants in this country, — probably the largest in the South. From a very small beginning some seven or eight years ago, they have outgrown their present quarters, and have found it necessary to make a more substantial increase in their equipment. About one hundred and fifty men will be employed when the new plant is finished.

Robert C. Martin & Son, 156 Fifth Avenue, New York, have been appointed local agents for the Ironclay Brick Company of Columbus, Ohio.

Harlan P. Kelsey and Irving T. Guild (formerly of Bates & Guild Co., architectural publishers) announce that they have entered into a partnership for the practice of landscape architecture, with offices at 6 Beacon Street, Boston.

FOR SALE OR LEASE.

A fully equipped Brick and Terra-Cotta Works, situated in Southern New Jersey, together with about 110½ acres of exceptionally fine quality of clay.

Now making conduits for underground electric wires.

Address communications to CLAY WORKS, care of Master Builders' Exchange, 24 South 7th Street, Philadelphia, Pa.

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ARCHITECTURAL · PERSPECTIVE · MECHANICAL

Text-books have been prepared by Professor W. H. Lawrence, M. I. T.; F. A. Bourne, Arch.; D. A Gregg, M. I. T.; H. E. Everett, U. of P.; Professor H. W. Gardner, M. I. T.; and others equally well known

COURSES OF ESPECIAL INTEREST TO ARCHITECTS AND DRAUGHTSMEN, IN ELECTRICAL, STEAM AND CIVIL ENGINEERING, HEATING, VENTILATION AND PLUMBING, ARCHITECTURE, CARPENTRY AND BUILDING, AND A FULL CURRICULUM OF OTHER ENGINEERING SUBJECTS

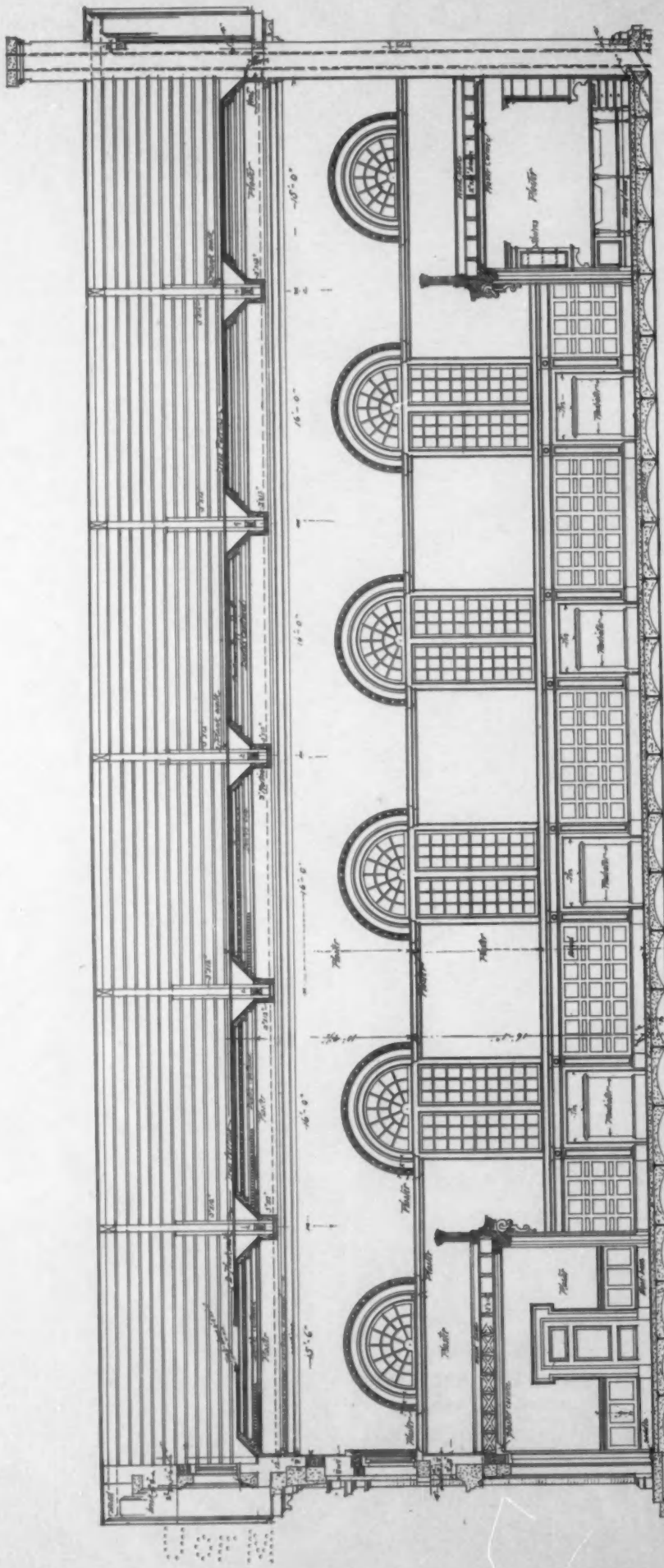
A specimen instruction paper in Perspective Drawing by Prof. W. H. Lawrence will be sent upon receipt of 6c. in stamps to cover cost of postage, etc.

Illustrated 180-page Catalogue sent FREE upon request.

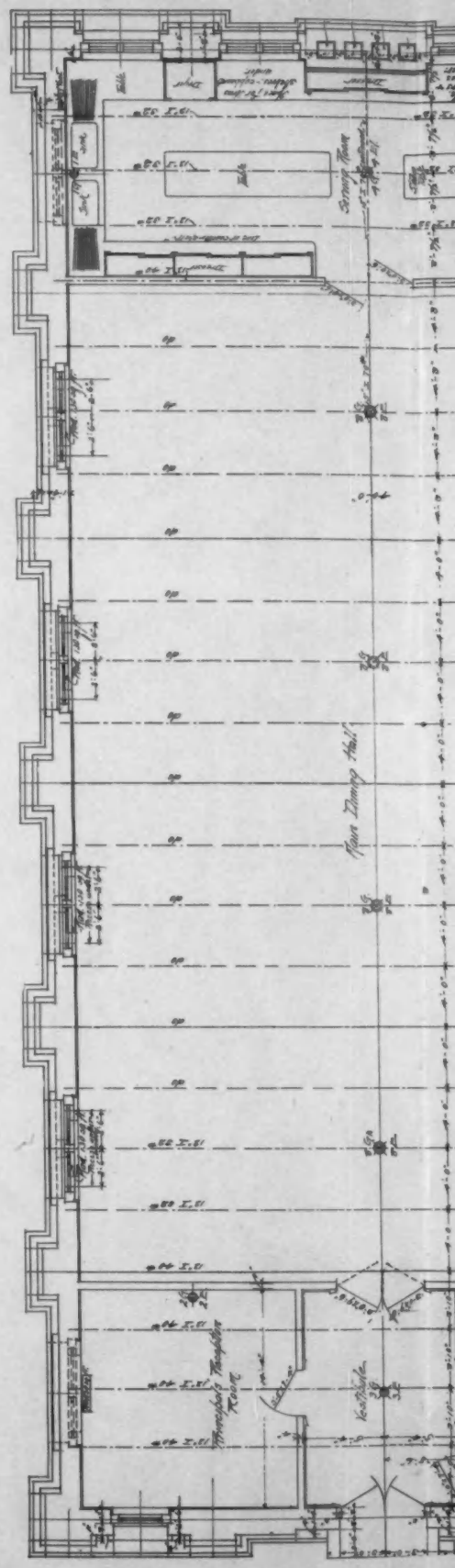
AMERICAN SCHOOL OF CORRESPONDENCE

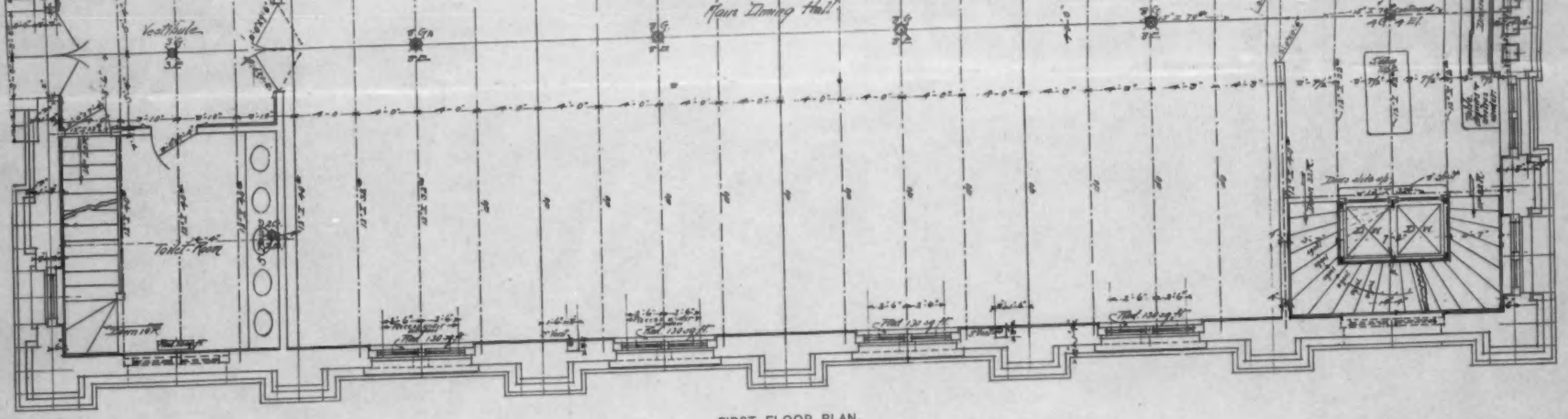
at Armour Institute of Technology, Room 16E, Chicago, Ill.

ПРИМ

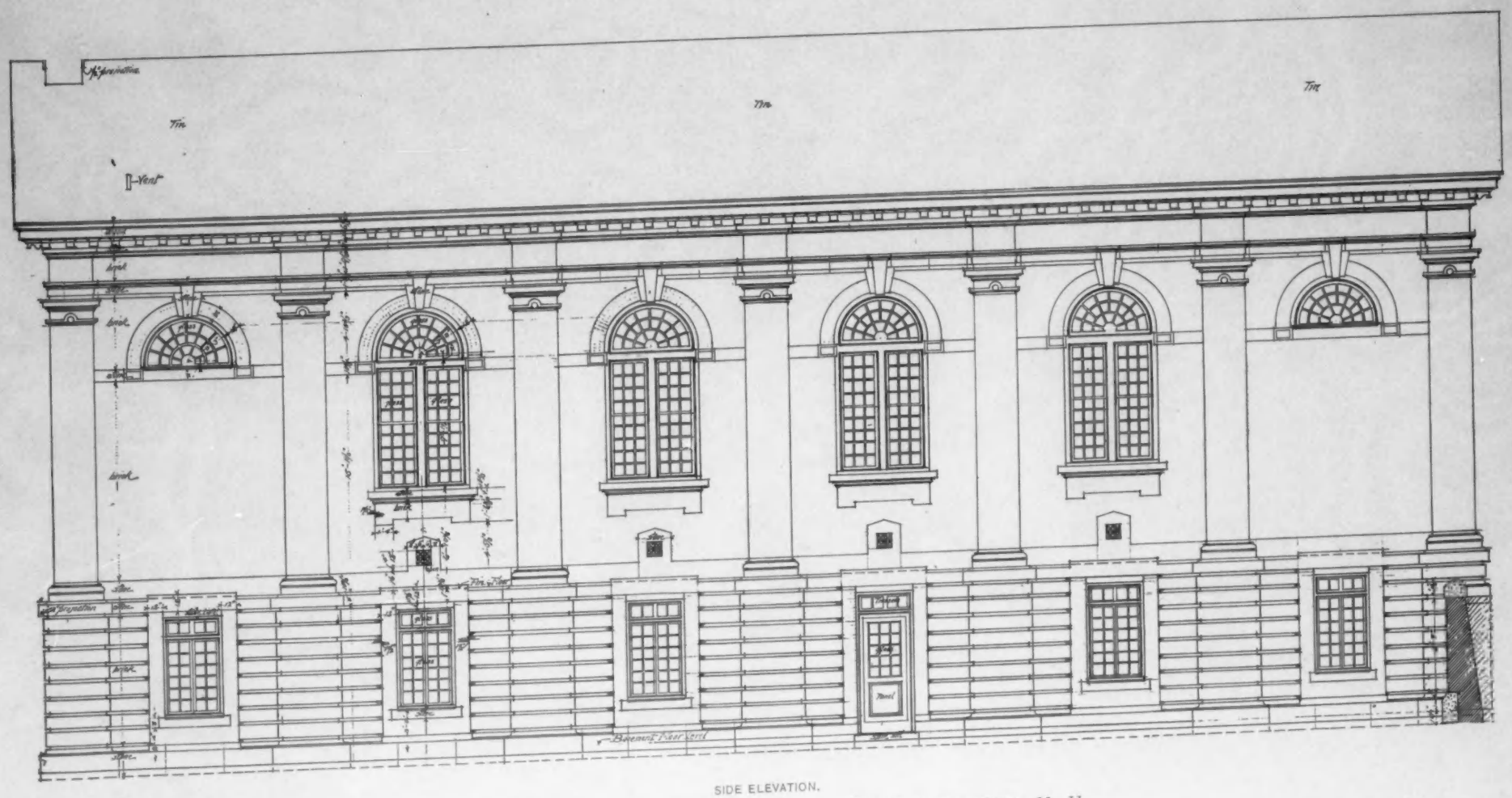


LONGITUDINAL SECTION.





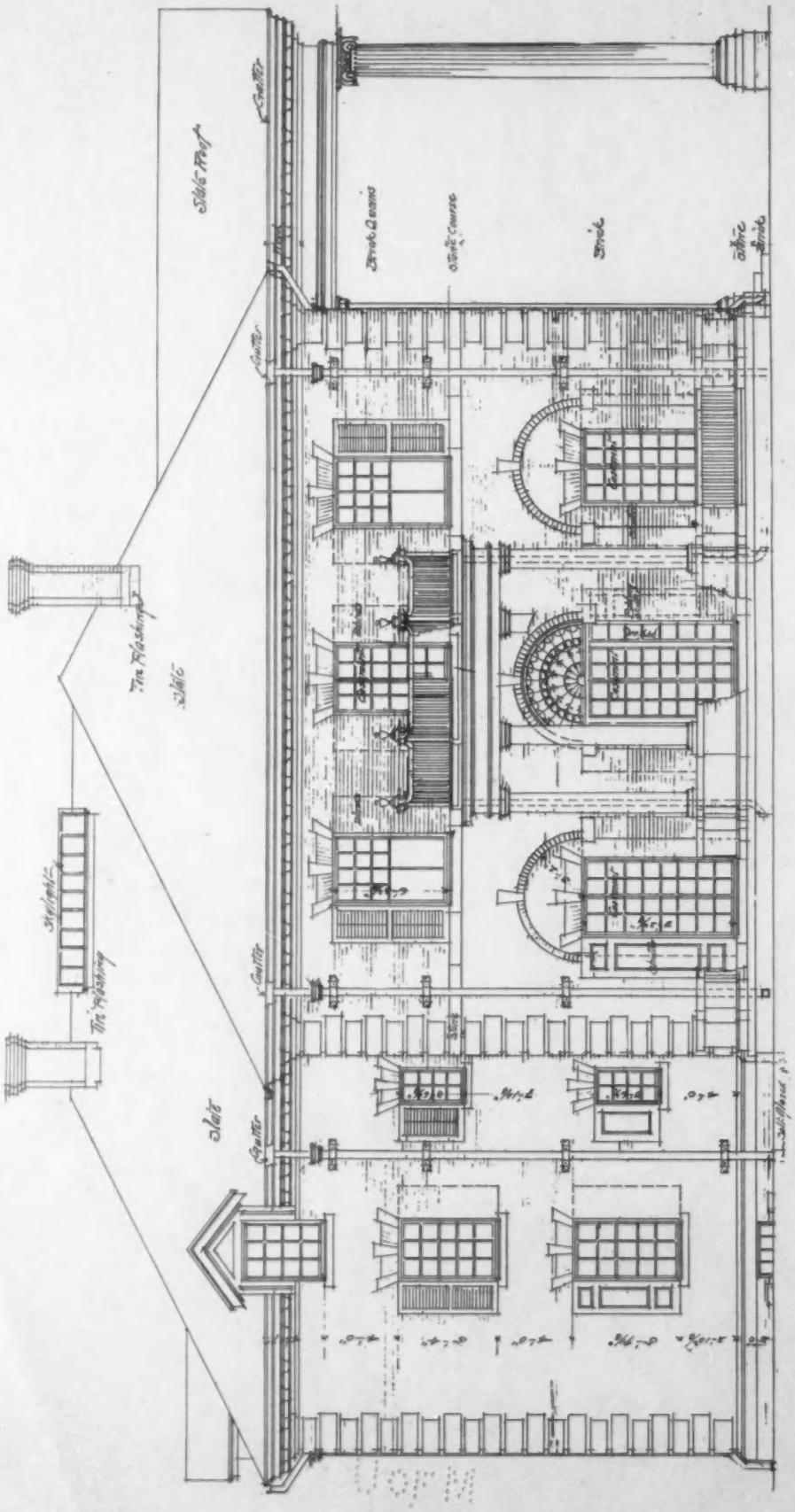
FIRST FLOOR PLAN.



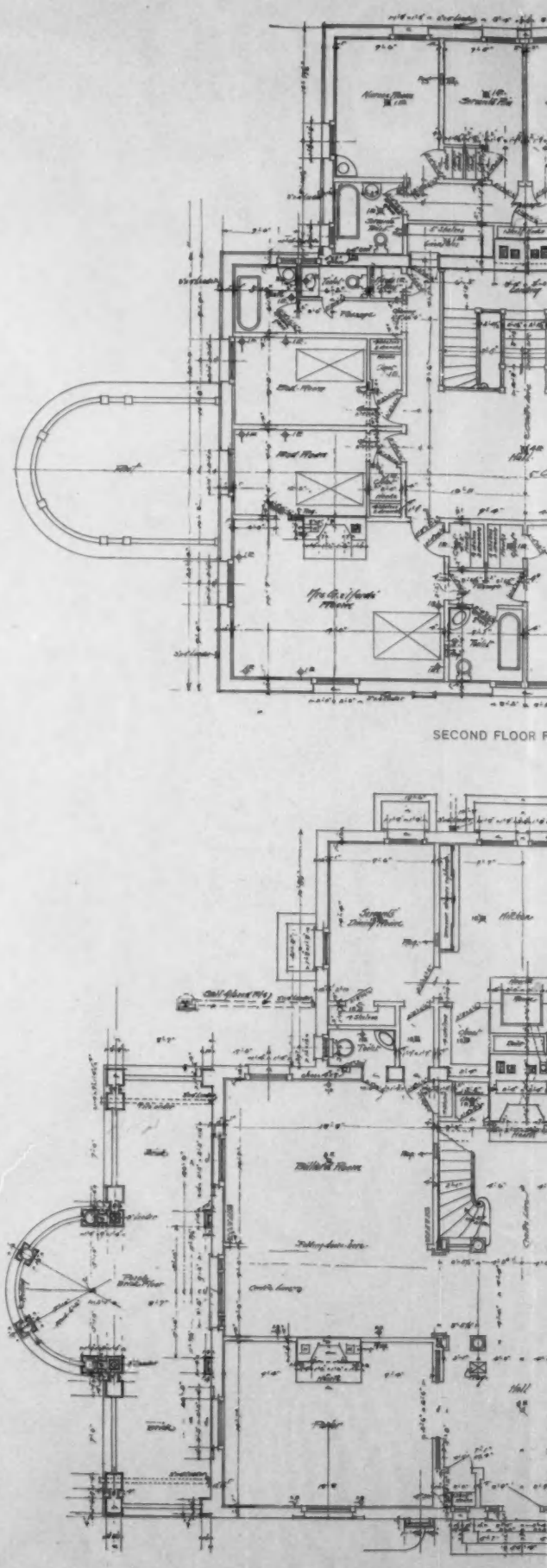
SIDE ELEVATION.

DINING HALL, PHILLIPS EXETER ACADEMY, EXETER, N. H.

EDWARD PEARCE CASEY, ARCHITECT.



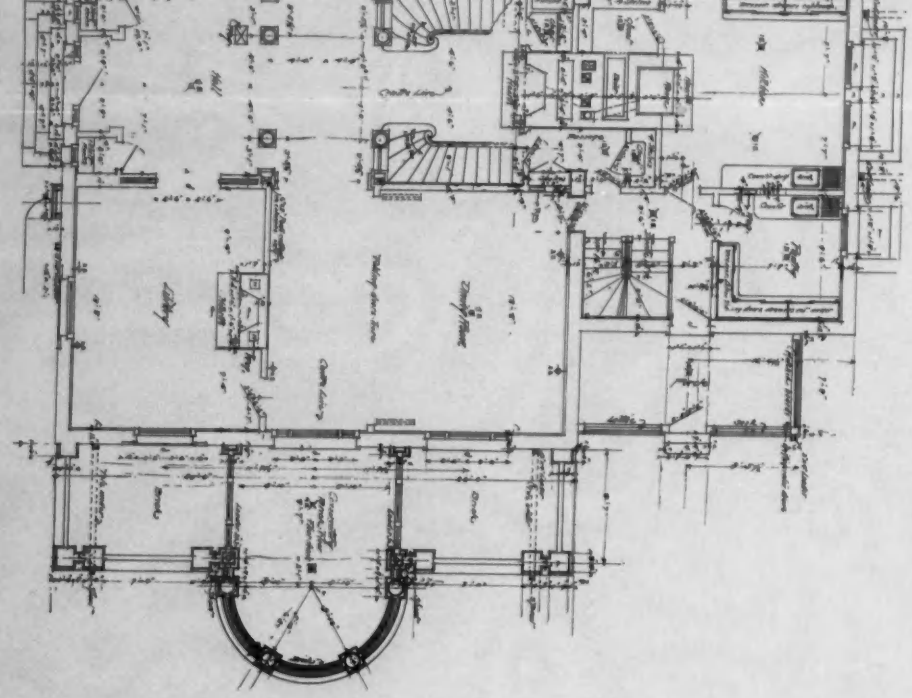
SIDE ELEVATION.



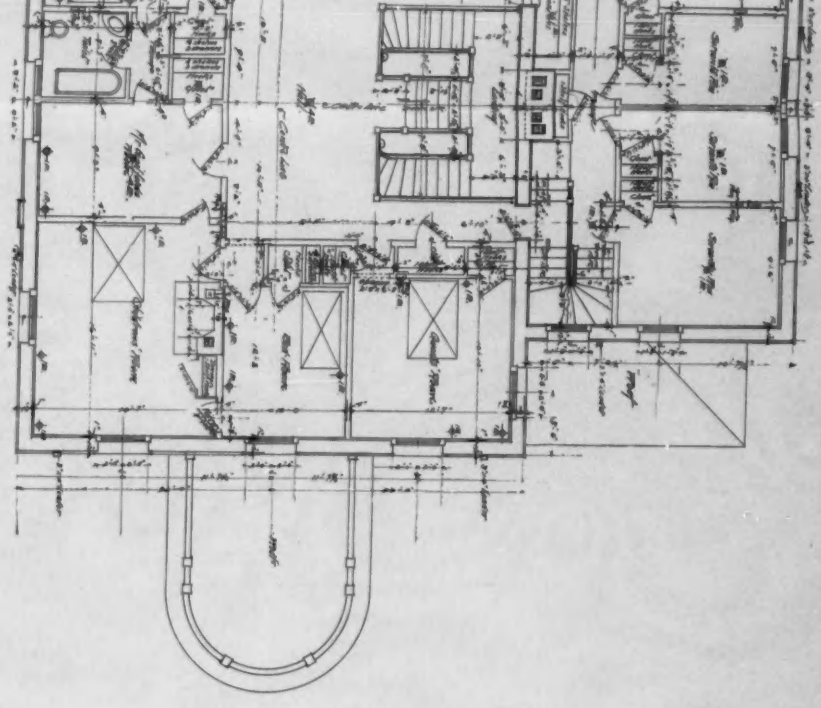
SECOND FLOOR P

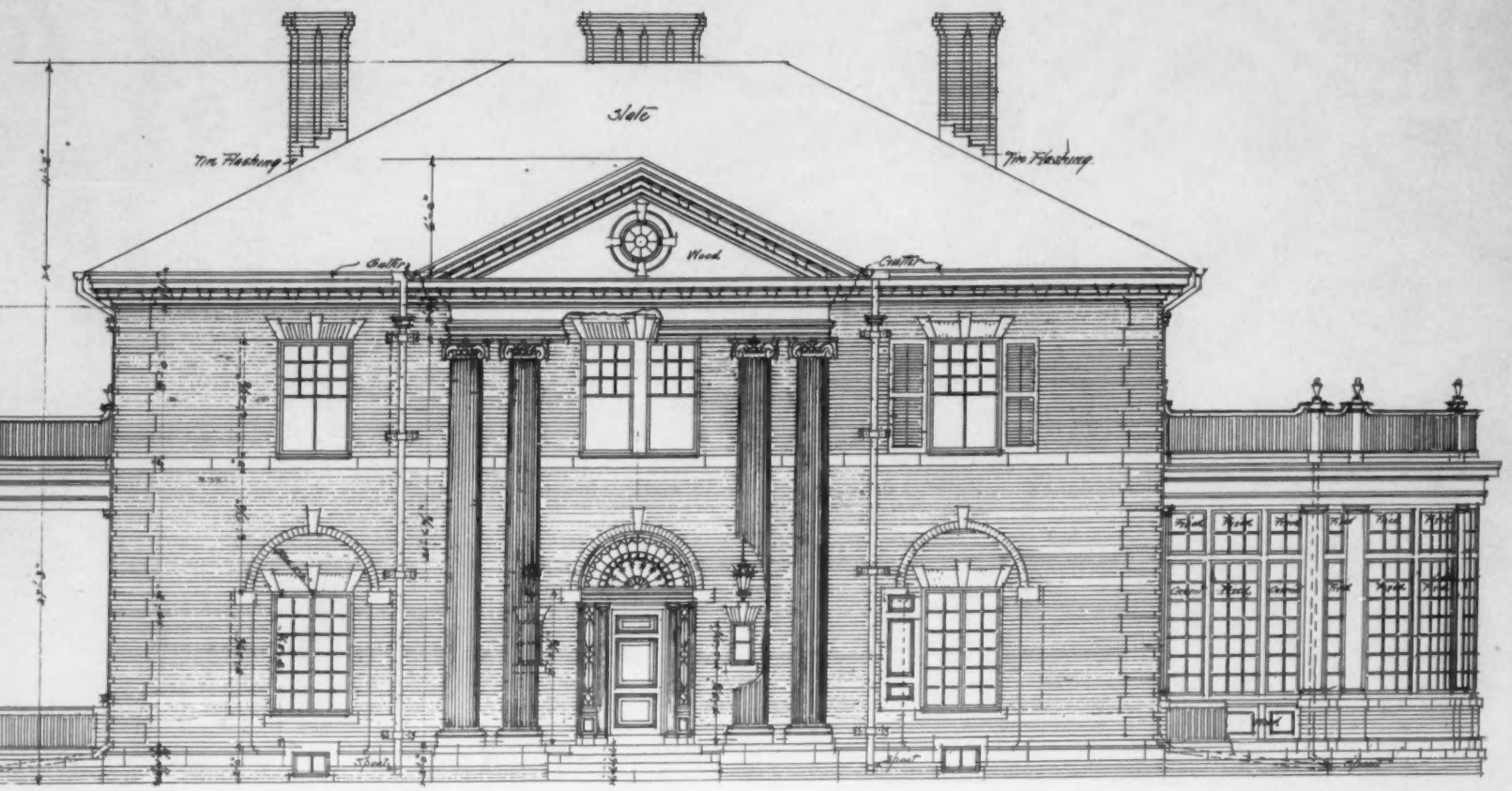
FIRST FLOOR P

FIRST FLOOR PLAN.



SECOND FLOOR PLAN.

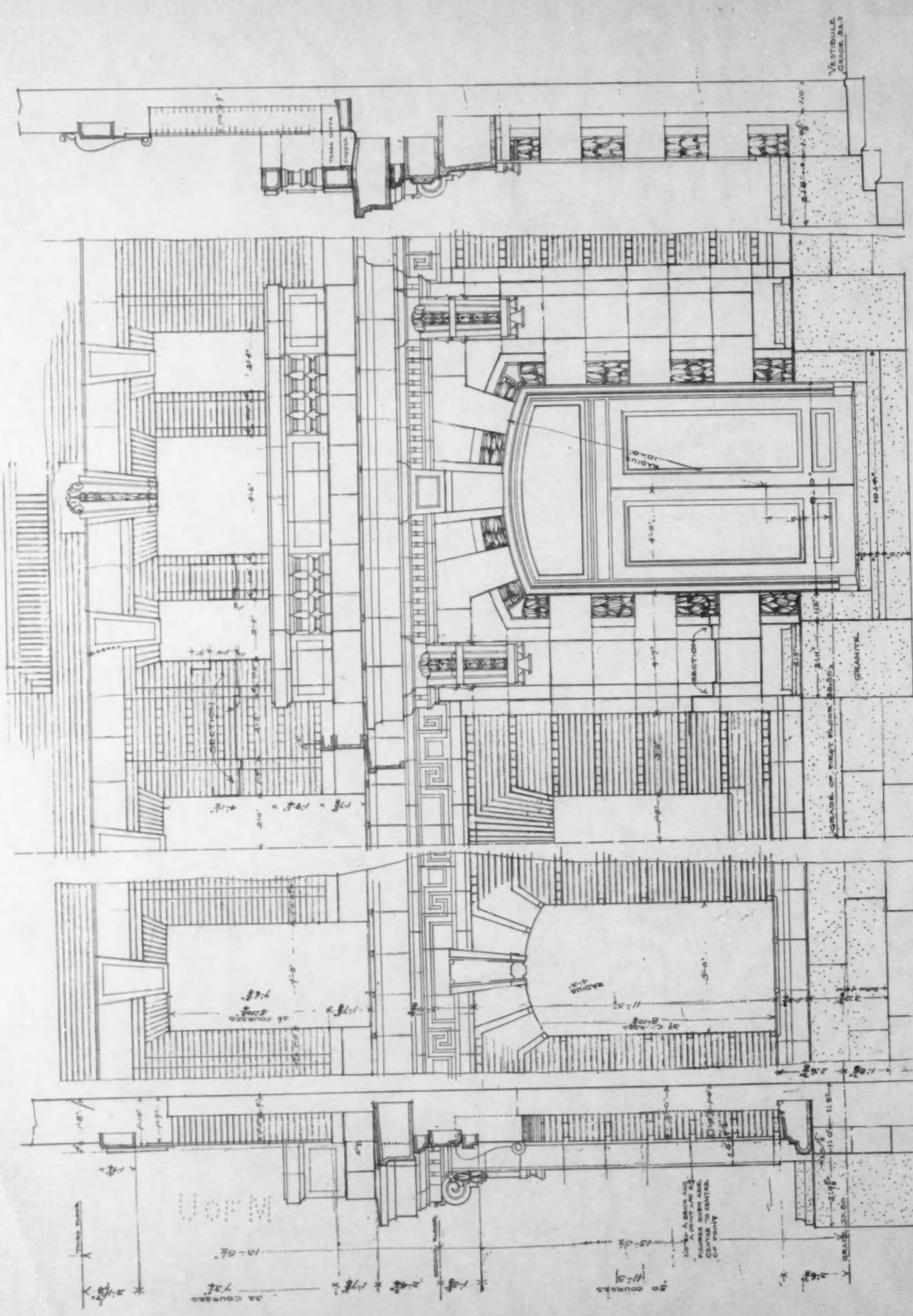




FRONT ELEVATION.

HOUSE AT LAKEWOOD N. J. EDWARD PEARCE CASEY, ARCHITECT.

VOL. 12. NO. 11.



SECTION THROUGH ENTRANCE AND BALCONY.

MAIN ENTRANCE.

ELEVATION OF WINDOWS.

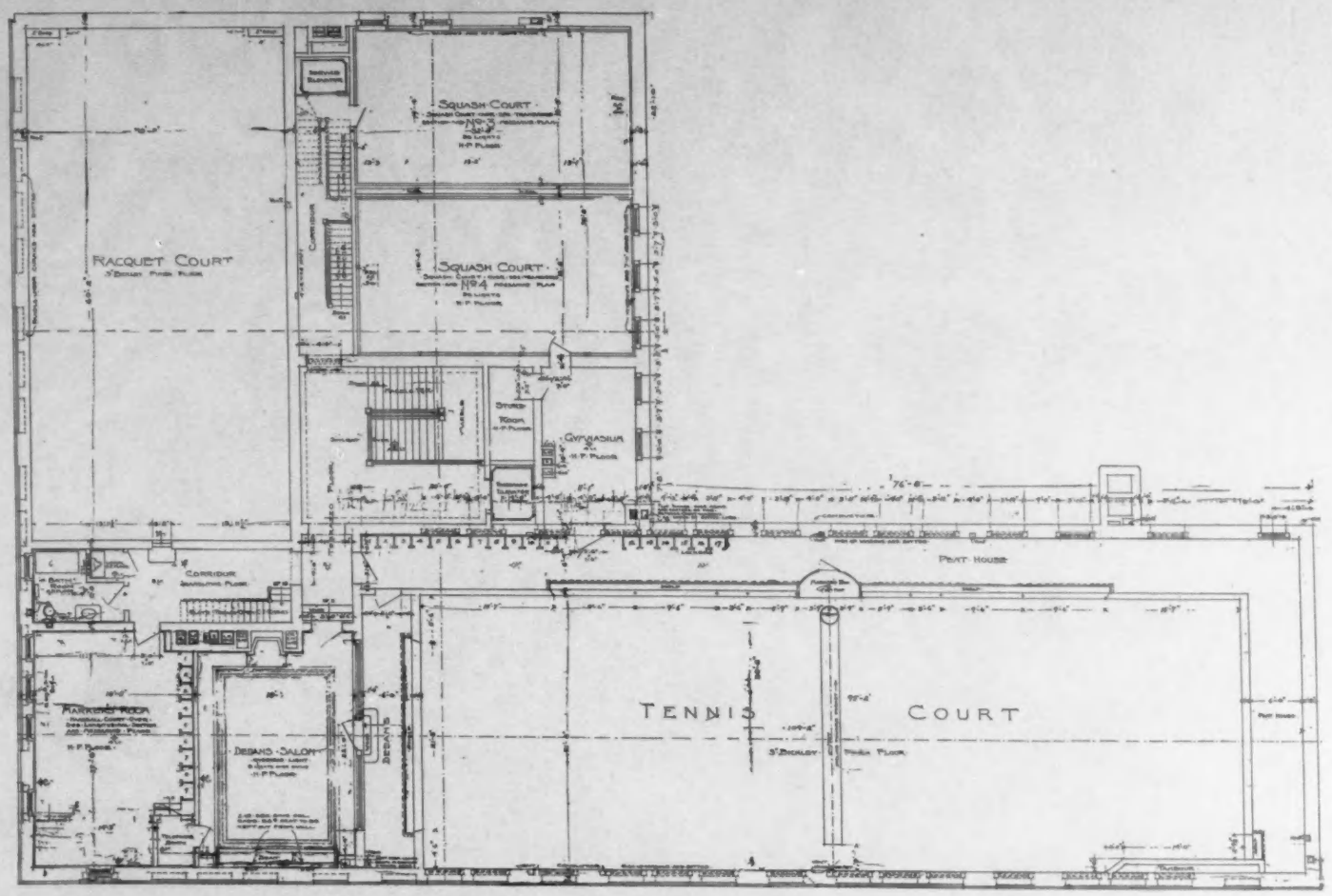
SECTION THROUGH WINDOWS AND SIDE OF MAIN ENTRANCE.

TENNIS AND RACQUET CLUB, BOYLSTON STREET BOSTON, MASS.

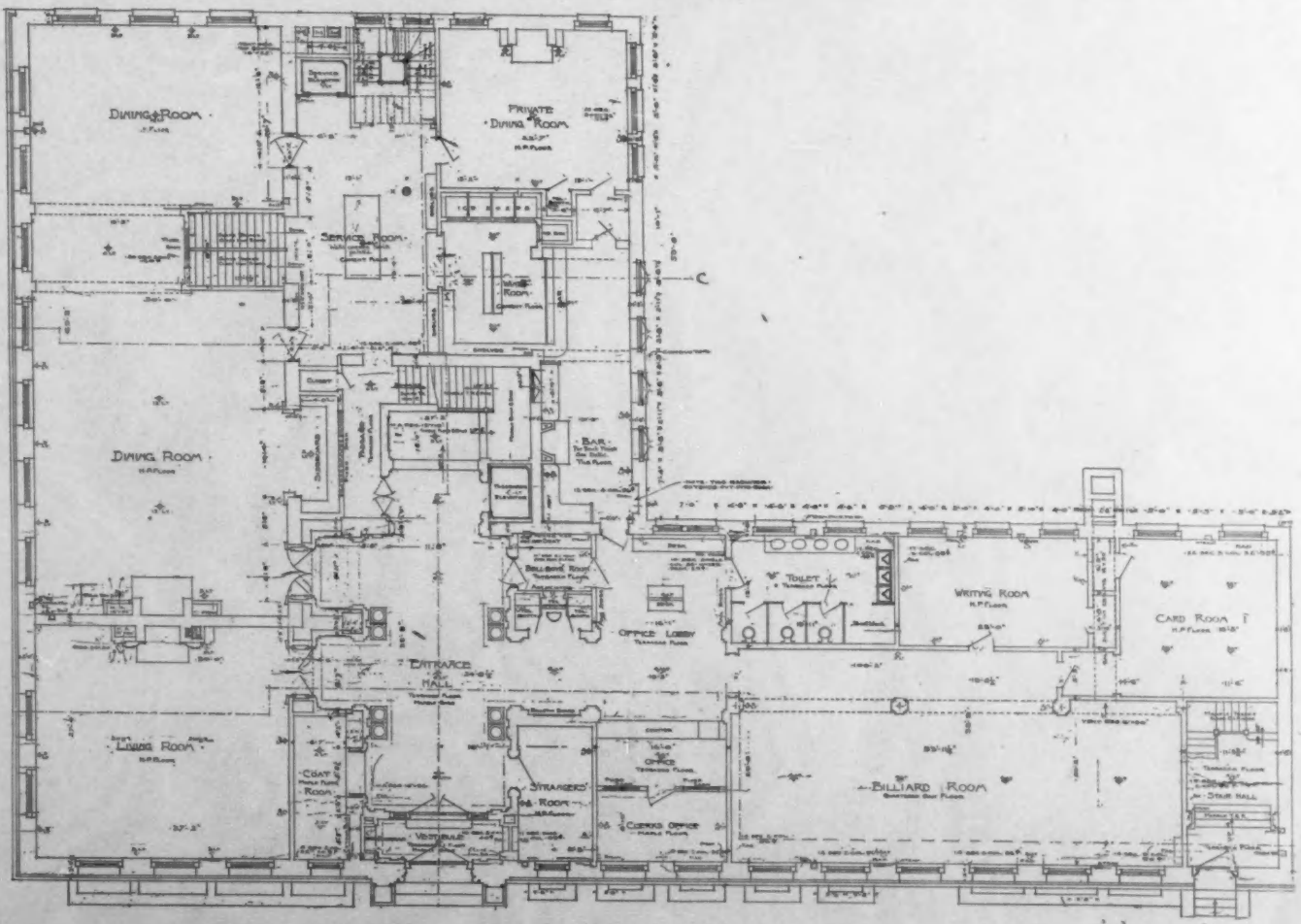
PEABODY & STEARNS, ARCHITECTS.

PLATES 83 and 86.

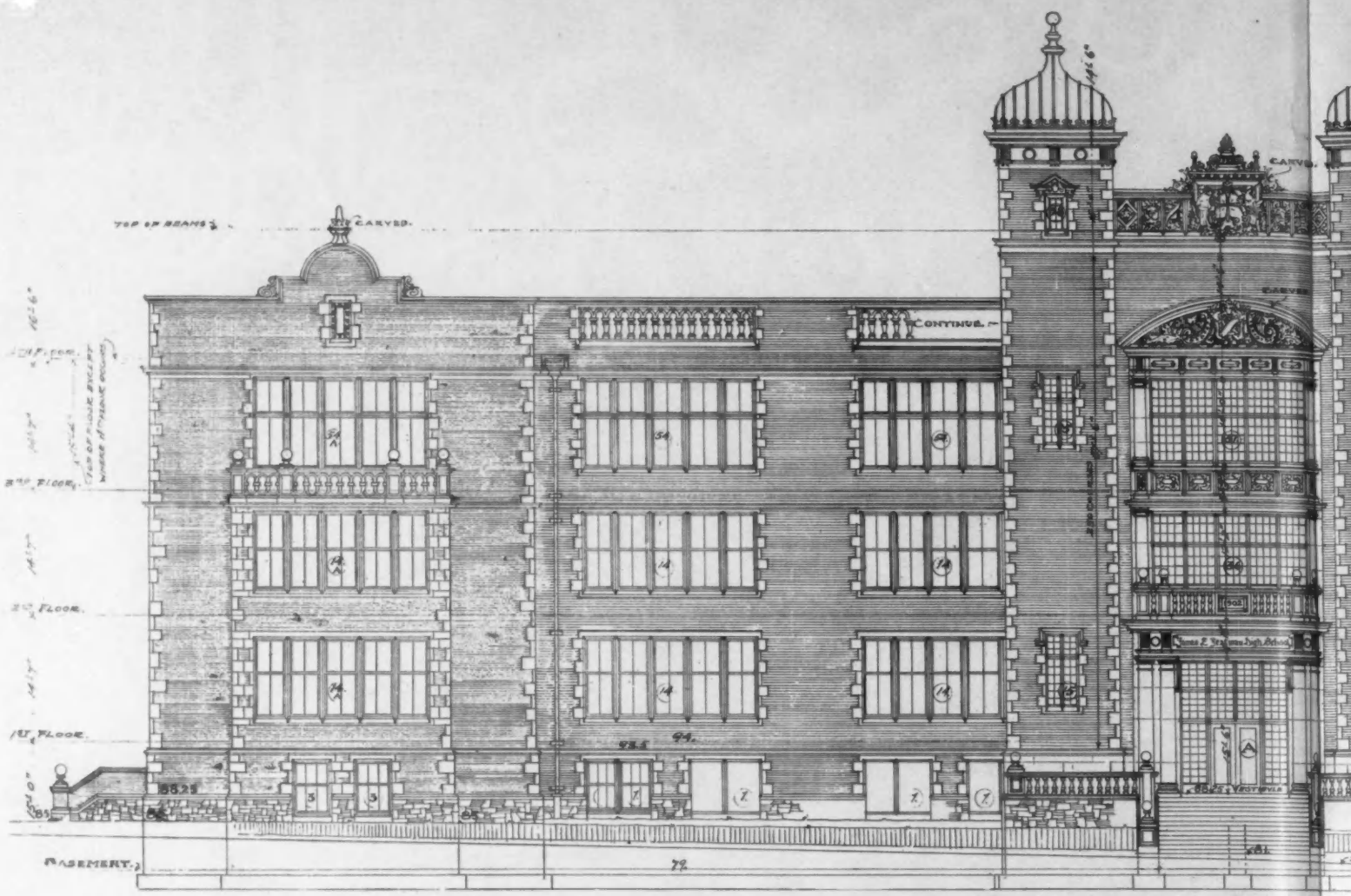
TENNIS AND RACQUET CLUB, BOYLSTON STREET BOSTON, MASS.
PARKER & THOMAS, ARCHITECTS.



THIRD FLOOR PLAN.



FIRST FLOOR PLAN.
(SECOND FLOOR GIVEN OVER TO LOUNGING, LOCKER AND BED ROOMS.)



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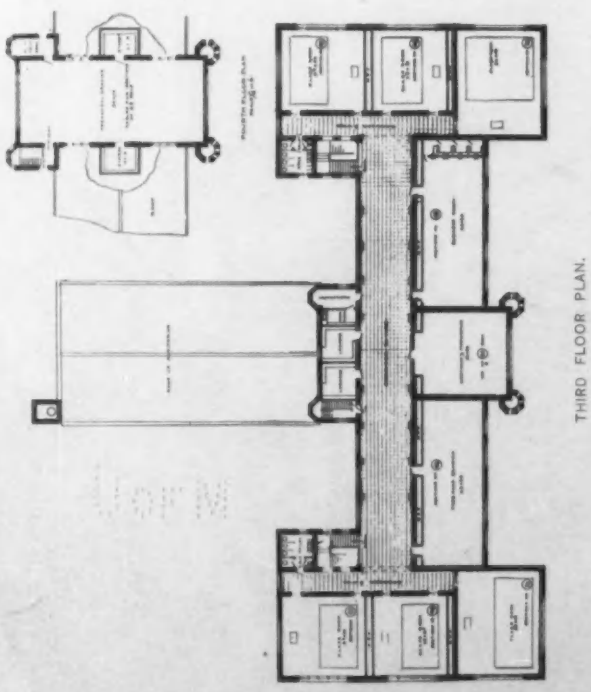
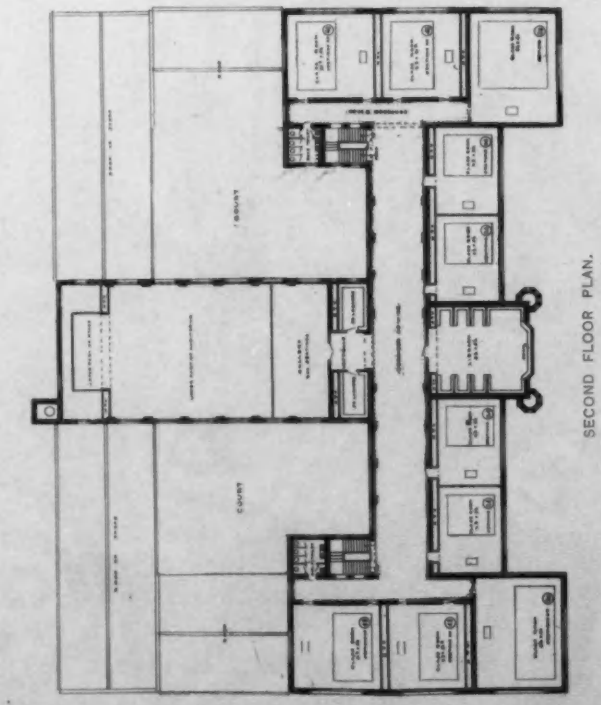
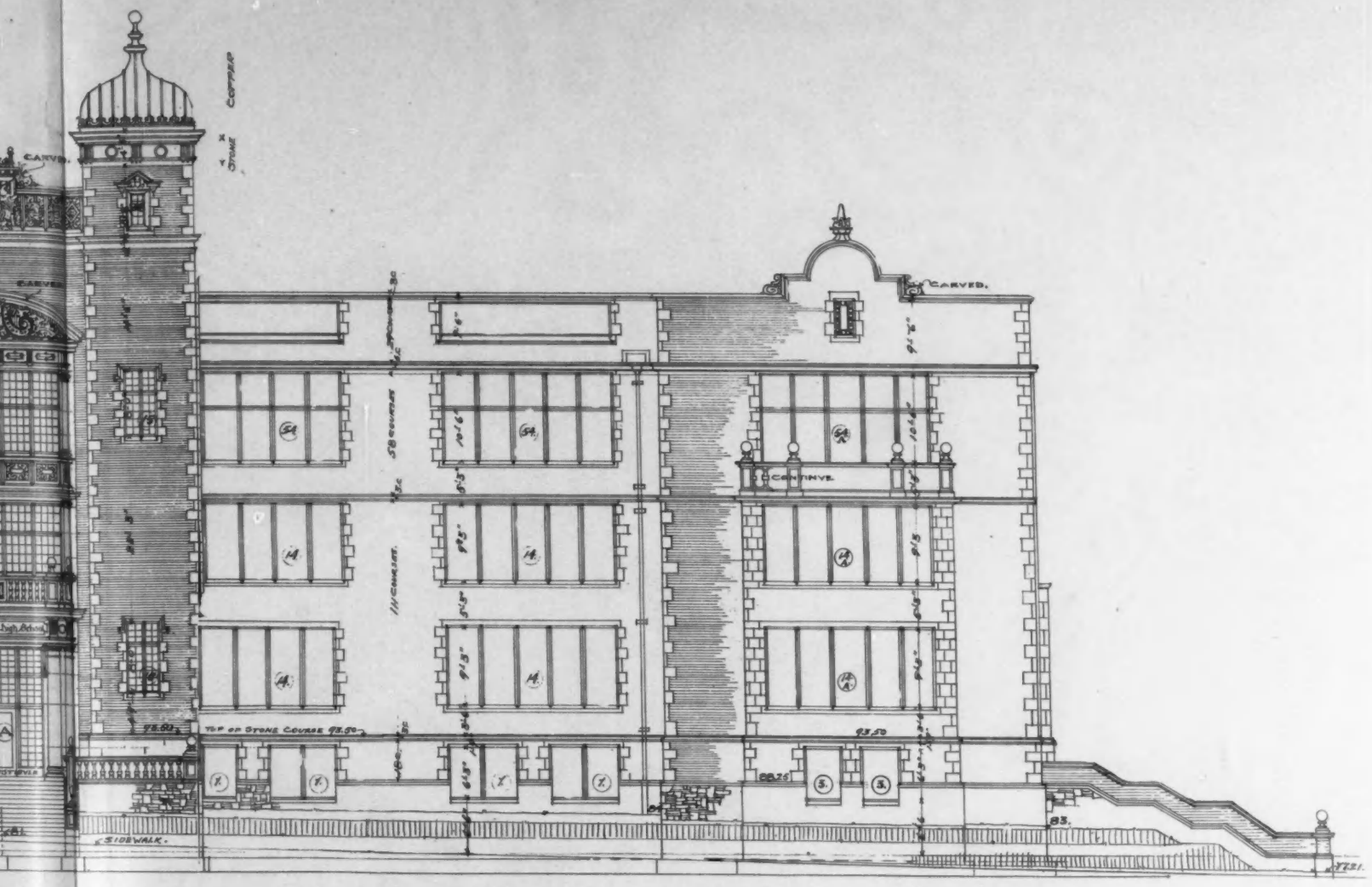
JAMES E. YEATMAN SCHOOL, ST. LOU





PLANS, JAMES E. YEATMAN AND WILLIAM McKINLEY HI

PLATES 84 and 85.



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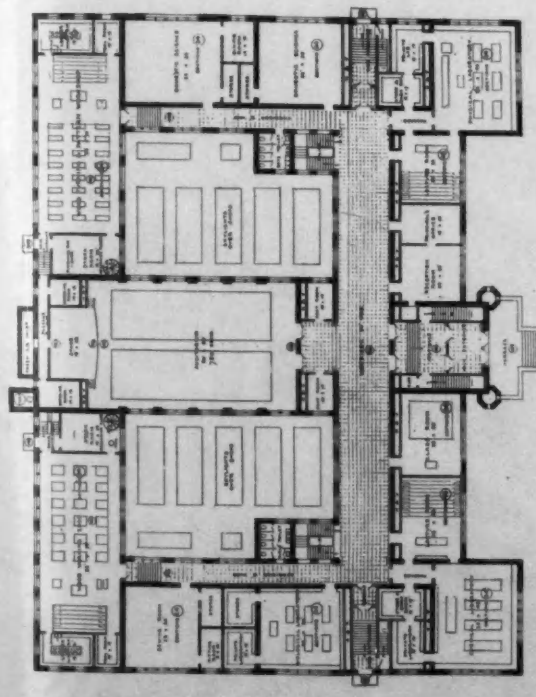
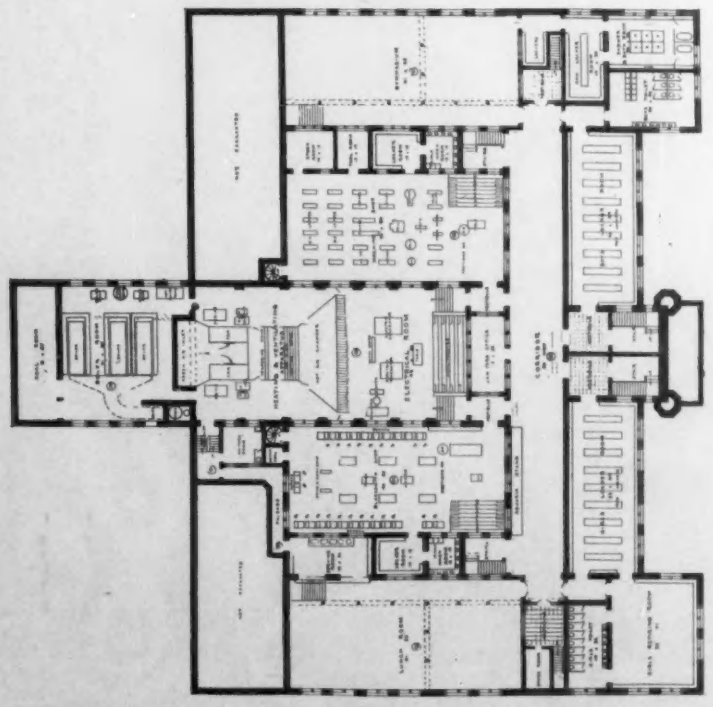
OOL, ST. LOUIS, MO. WILLIAM B. ITTNER, ARCHITECT.



FIRST FLOOR PLAN.



BASEMENT PLAN.

KINLEY HIGH SCHOOLS, ST. LOUIS, MO. WILLIAM B. ITTNER, ARCHITECT.

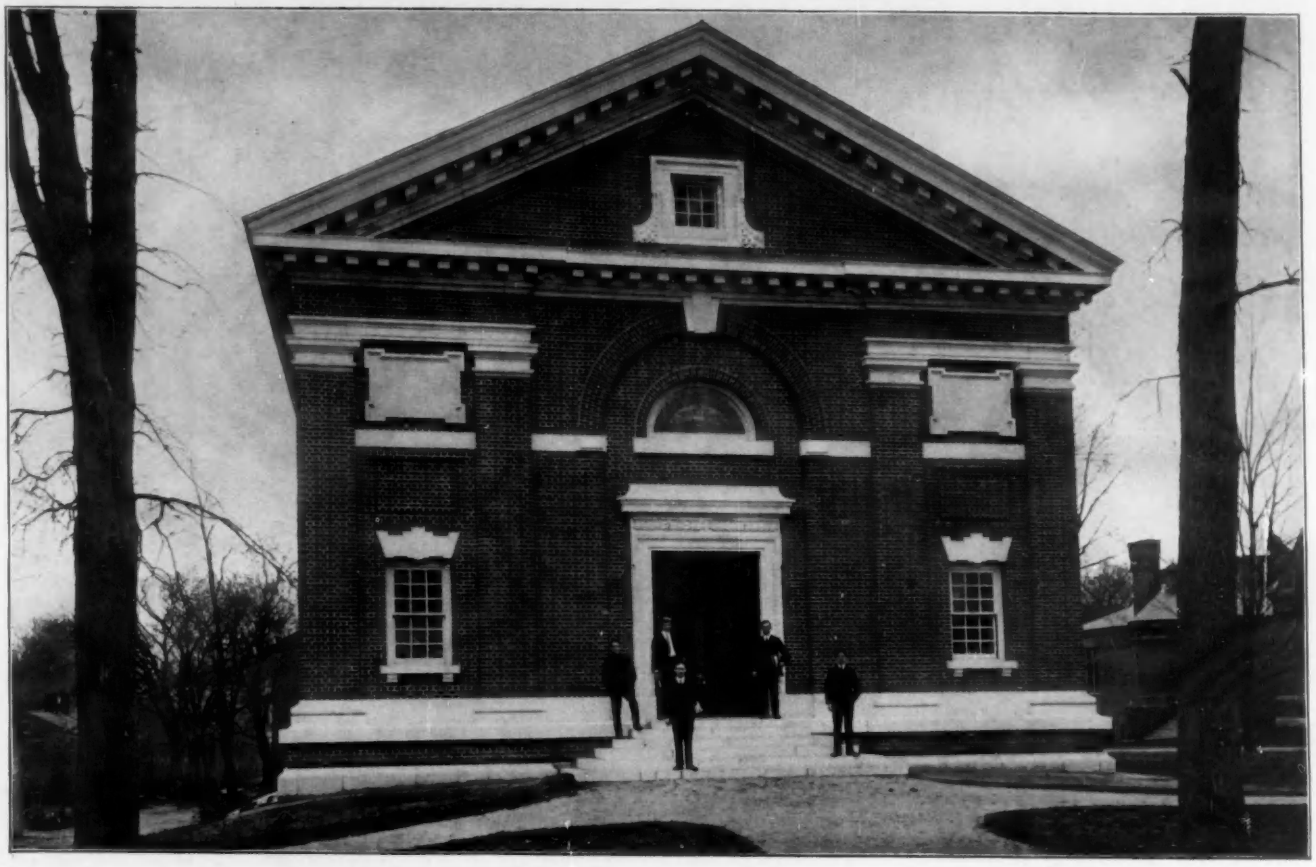
HOUSE, 5220 EAST END AVENUE, CHICAGO. POND & POND, ARCHITECTS.

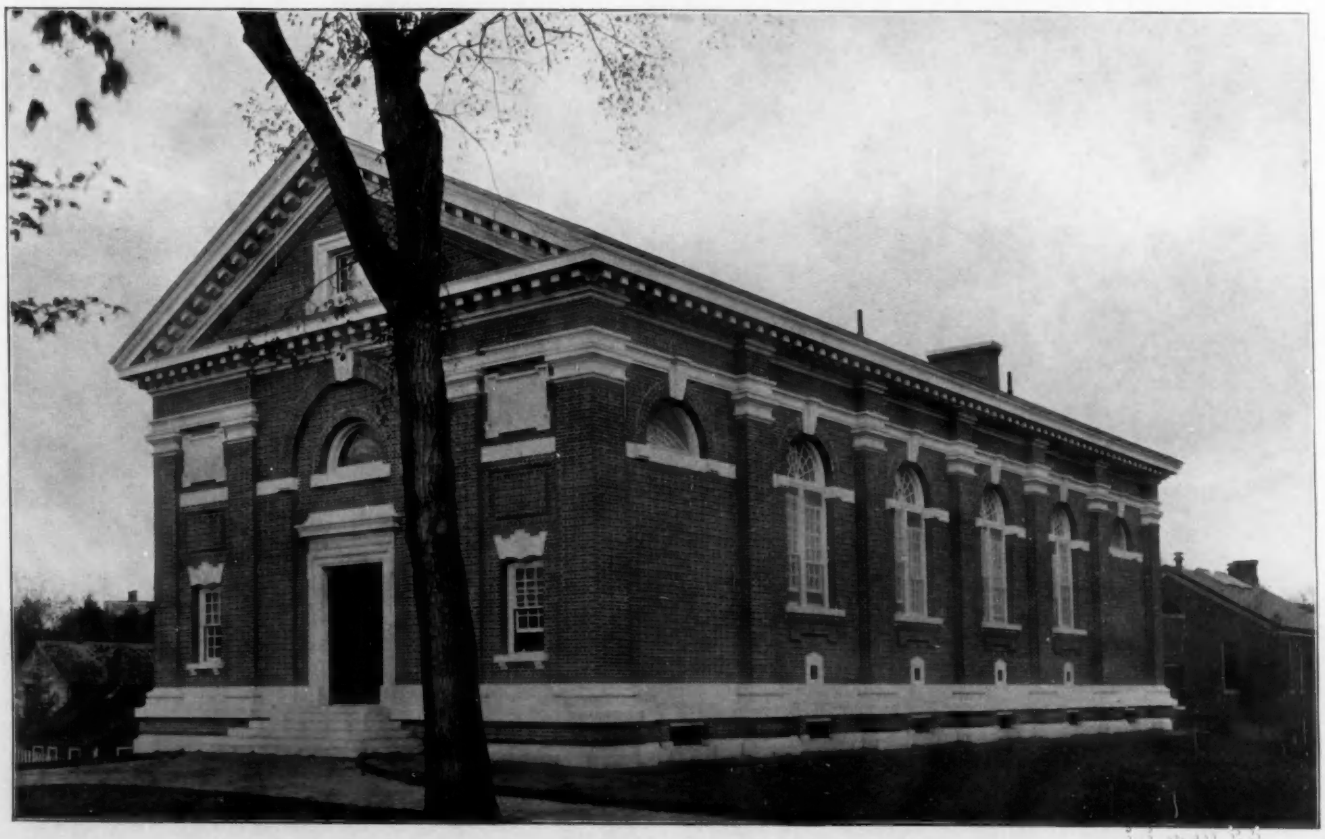
HOUSE, 5749 WOODLAWN AVENUE CHICAGO. POND & POND ARCHITECTS.

ПОЛЯ

HOUSE, LAKEWOOD, N. J.

EDWARD PEARCE CASEY ARCHITECT.





DINING HALL, PHILLIPS EXETER ACADEMY EXETER N. H.

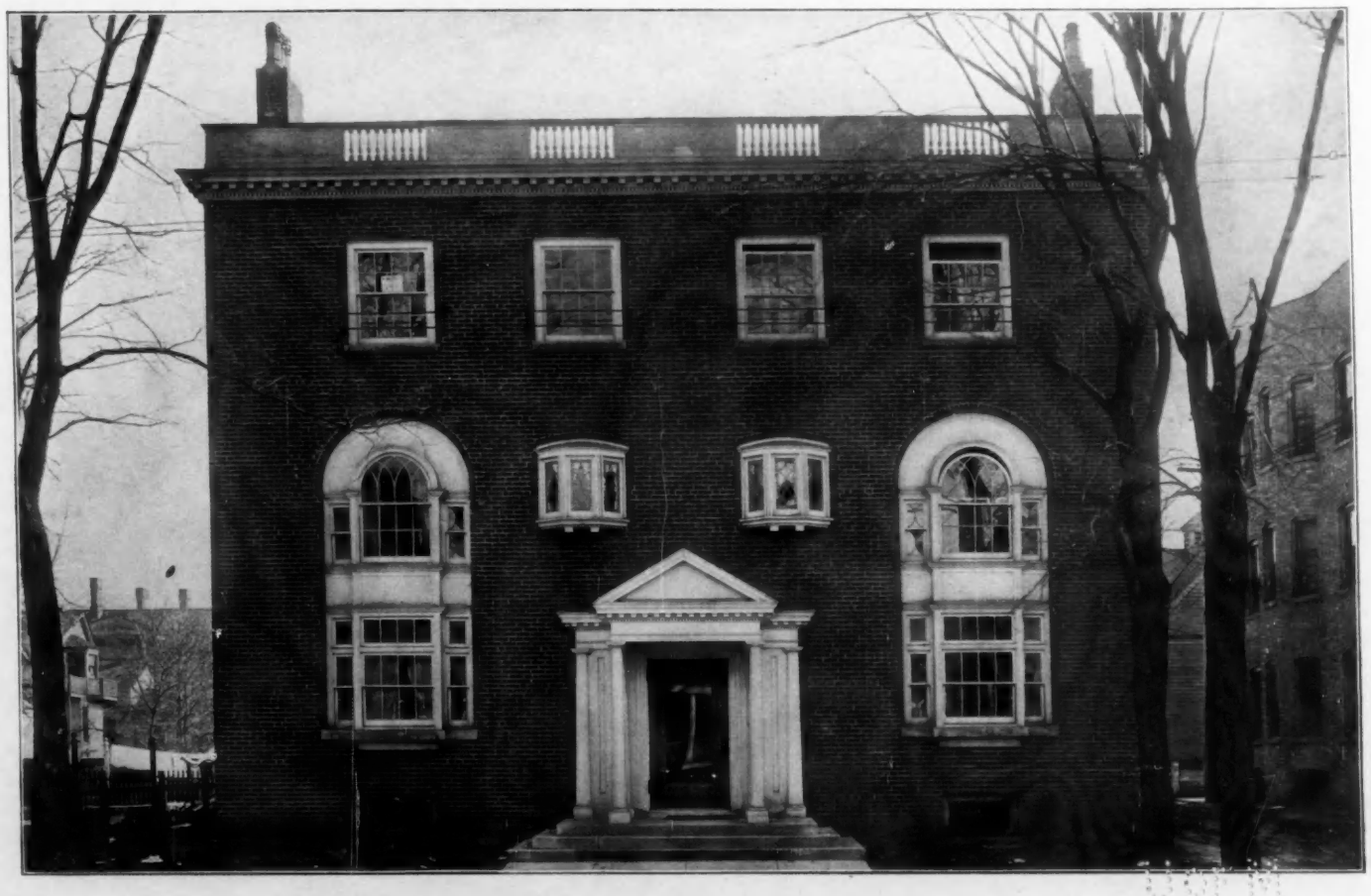
EDWARD PEARCE CASEY, ARCHITECT.

ПОЛЬ

TENNIS AND RACQUET CLUB, BOYLSTON STREET, BOSTON MASS.

PARKER & THOMAS, ARCHITECTS.

APARTMENT HOUSE CHICAGO. JAMES GAMBLE ROGERS, ARCHITECT.



APARTMENT HOUSE CLARK STREET, EVANSTON. MYRON HUNT ARCHITECT.

HOUSE, LAKEWOOD, N. J.

EDWARD PEARCE CASEY ARCHITECT.